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# REPORT OF HEARINGS

BEFORE THE

## JOINT SELECT COMMITTEE

OF THE

## LEGISLATURE OF WEST VIRGINIA

Appointed under Substitute for House Concurrent  
Resolution No. 5 and House Joint  
Resolution No. 19

TO

Investigate the Cause of Mine Explosions Within the  
State and to Recommend Remedial  
Legislation Relating Thereto.

TOGETHER WITH THE

PRELIMINARY AND FINAL REPORTS.

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## COMMITTEE

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HON. THOMAS GARTLAN, *Chairman.*

HON. R. F. KIDD,

*On the part of the Senate.*

HON. J. H. STRICKLING,

HON. M. K. DUTY,

HON. A. J. MITCHELL,

*On the part of the House.*

JOHN T. HARRIS,

*Secretary and Stenographer.*

JOHN MARSHALL, *Sergeant-at-Arms.*





# SUBSTITUTE FOR

## House Concurrent Resolution No. 5 and House Joint Resolution No. 19.

(Adopted February 6, 1907.)

Appointing a committee of the legislature to investigate mine disasters and report to the legislature.

WHEREAS, on the evening of January twenty-ninth, one thousand nine hundred and seven, a most disastrous mine explosion occurred at Stuart mine, Fayette county, West Virginia, resulting in the death of over eighty mine workers, rendering over forty families, widows and children orphaned; and

WHEREAS, many explosions in mines have occurred in this state within the recent past resulting in great loss of life and property; and

WHEREAS, the governor of this state in obedience to the great public concern and apprehension occasioned by the loss of life in coal mines in this state prior to the convening of the present session of the legislature, appointed a commission to take up the entire subject of mining legislation and report a feasible and practical plan for amending the mining laws of this state, to the end that the health of the mine workers might be preserved, loss of life prevented and property saved; and

WHEREAS, there has never been a legislative investigation of a mine disaster in this state, and it is commonly charged that the local investigations of these calamities are not thorough, and it is the desire of the legislature to do what is best after hearing all the facts and after knowing all the conditions, and without charging negligence or fault to any one; it is hereby

*Resolved by the Legislature of West Virginia:*

First, that a committee of five be and the same is hereby appointed, consisting of three upon the part of the house of delegates to be appointed by the speaker thereof, and two on the part of the senate to be appointed by the president thereof, which committee at once shall fully and fairly investigate;

Second, whether said Stuart mine was being operated in violation of law, and if so in what particular it was being so operated;

Third, the cause of the disaster at said Stuart mine and other like disasters occurring in the state within the recent past;

Fourth, to investigate fully the bureau of mine inspection as to the conduct and workings of its office;

Fifth, to ascertain and report what further legislation is necessary in order to prevent a recurrence of similar disasters, and what further legislation may be necessary to enable the mine inspector effectively to promulgate rules and regulations for the conduct of mining operations and to secure the enforcement of the law and the compliance with such rules and regulations.

The committee is hereby directed to report upon its investigation on or before the eighteenth day of the present month.

Said committee is authorized to obtain the assistance of two persons expert in mines and mining in all its branches and to employ necessary stenographers.

The attorney general is hereby directed to give the committee all possible assistance; and the committee is empowered to employ such other counsel as it may deem necessary.

All expenses of this investigation shall be paid out of the treasury of the state upon warrants drawn by the auditor therefor; the auditor is hereby authorized and directed to draw his warrant for such amounts as shall be certified to him by the chairman of the joint committee hereby created.

The committee is hereby empowered to send for persons, papers and records; to administer oaths, and to examine witnesses under oath.

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## APPOINTMENT AND ORGANIZATION OF COMMITTEE.

On the same day that the foregoing resolution was adopted, the president of the senate appointed as members of the committee on the part of the senate Messrs. Gartlan, of Wood county, and Kidd, of Gilmer county; and

The speaker of the house of delegates appointed as members of the committee on the part of the house, Messrs. Strickling, of Tyler county, Duty of Ritchie county and Mitchell of Wirt county.

The committee met on the evening of February 8th, 1907, and organized by the election of Senator Thomas Gartlan as chairman.

On motion it was ordered that a mining expert be employed to accompany the committee to the Stuart mine.

Daniel Cunningham was appointed Sergeant-at-Arms *pro tem.* and Howard C. Smith and George Grass as assistant sergeants-at-arms, *pro tem.* to locate and bring witnesses before the committee.

The committee then adjourned to meet at 5 o'clock on the evening of February 10th, and proceed to the Stuart mine in Fayette county, the scene of the recent explosion.

On the evening of February 10th, the committee met at the time appointed and all the members were present, together with Attorney General Clarke W. May, the sergeant and assistant sergeants-at-arms, *pro tem.* and Mr. John O. Brooks, of Clarksburg, a mining expert employed by the committee under the motion adopted at the previous meeting.

Mr. E. C. Frame was chosen as secretary and stenographer, *pro tem.* to accompany the committee.

The party left Charleston on the evening train over the Chesapeake & Ohio Railway, arriving at Thurmond that night, and at the Stuart mine the following day, where the proceedings immediately hereinafter appearing were had.

# STUART MINE EXPLOSION

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## Fayette County.

JANUARY 29, 1907.

MONDAY, FEBRUARY 11, 1907.

The committee met at the Stuart mine, on Monday, February 11th, 1907, at 12 o'clock noon.

Present: Messrs. Gartlan (chairman), Kidd, Strickling, Duty and Mitchell, being all the members of the committee; and

Hon. Clarke W. May, Attorney General, on behalf of the State; and

Hon. C. W. Dillon, on behalf of the mine owners.

The meeting was called to order by Chairman Gartlan, and the committee proceeded to hear the testimony of witnesses, as follows:

THOMAS DAVIS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Thomas Davis.

Examination by Attorney General May:

Q. What is your name?

A. Thomas Davis.

Q. Where do you live?

1a A. At Parral.

2. What is your present business?

A. Mine boss.

d Q. Where were you on the day the recent explosion occurred in the Stuart mine?

e A. In Parral mine.

Q. How long before that day had it been since you were at the Stuart mine?

A. Nearly two years since I was there.

Q. You may tell the committee if you will what if anything you know about the condition of the Stuart mine immediately before and after the explosion, and any other information you may have?

A. The only thing I know was the general opinion of the place from men who worked there.

Q. Just state what you know of your own knowledge.

A. We knew that the Stuart and Parral mines were under the same management, and that we were under orders at both places, and they kept the mine in good condition.

Q. How long since you have been in this mine?

A. Two years..

Q. Then you have no recent knowledge of its condition?

A. No, nothing more than its general condition.

By Senator Kidd: Q. What is your opinion?

A. Every one seemed to think that the mine was in perfect condition. Every one seemed satisfied.

Q. Before or after the explosion?

A. Before; men that left here (Stuart) and came to Parral to work from time to time.

Q. How far is it from the Stuart mine to the Parral mine?

A. It is about five thousand feet between the shafts.

Q. Have you had an opportunity to talk with men from the Stuart mine frequently during the last year.

A. Yes, sir, I was well acquainted with a majority of the men working in there.

Q. Was there any fear expressed among the men of any especial danger in that mine?

A. No, sir; to the contrary.

Q. How many openings were there?

A. One.

Q. How long has that mine been in operation?

A. I forget exactly. I helped open it up.

Q. Give us your best recollection.

A. About two and one half years, I expect.

By Attorney General May: Q. How many men were working in the mine at or about the time of the explosion?

A.. When I worked there, there were eighteen men working there.

Q. Do you know how many men worked there after you left?

Q. No, I can't say..

By Delegate Strickling: Q. What were your duties at the Stuart mine?

A. I had no duties there.

Q. You had nothing to do with the Stuart mine?

A. No, sir.

Q. What caused you to talk with the men?

A. Where men left one mine to come to another one, they would generally tell the conditions at the other mine. You would generally ask a man why he left the other place.

Q. You are speaking of the Stuart mine?

A. Yes, sir; when a man leaves one mine to go to another, you want to know the reason why he wants to change.

Q. What relation do you sustain to the Parral mine?

A. Mine foreman.

Q. You have been mine foreman for how long?

A. A year the ninth of this month.

Q. About how many men have left this mine and gone to the Parral mine?

A. I can't tell that.

Q. How many have left within the past few months and gone to the Parral mine?

A. There has no one left, that I know of, and come over to the Parral mine, in the last month.

Q. Prior to that time, were there a good many left here and went to the Parral mine?

A.. No, not a good many; one now and then.

Q. You made up your mind, then, as to the condition of this mine by what these few people would say?

A. Yes, sir; when a man would be discharged from a mine and he had anything bad to say about it, he would generally say it.

Q. The Parral and Stuart mines were under the same management?

A. Yes, sir.

Q. If a man is discharged from one mine, do you admit him in the other mine?

A. Yes, sir, with the permission of the superintendent.

By Mr. Dillen: Q. How long have you worked about mines?

A. About 26 years.

Q. Did you ever hear any complaint from any of the people working in the Stuart mine as to gasses in it?

A. No, sir.

By Attorney General May: Q. A man working in a mine such as the Stuart mine, is he able to tell of the presence of gas in quantities that are dangerous?

A. Yes, sir.

Q. Have you ever talked with any one who would probably know of the existence of gas in this mine, in dangerous quantities?

A. One instance I can name: My brother in working in this mine—in his work he had to go to practically every place in the mine, and they always used naked lights, and I never heard him make a remark that would indicate that he had been exposed to gas in the Stuart mine.

Q. Can you detect the presence of gas in a mine?

A. Yes, sir.

Q. How?

A. By a safety lamp in searching for it, and the fire boss would report it.

Q. Take an ordinary laborer, can he detect it by the smell of it?

A. No, sir; not until he lights it, if it is there.

Q. I believe you had a brother killed in this explosion?

A. Yes, sir.

Q. What position did he hold?

A. He was assistant engineer..

Q. It was a part of his duties to ascertain the sanitary condition of the mine?

A. Yes, sir.

Q. How often?

A. Once or twice a week.

Q. How long before he died did you have any conversation with him?

A. The night before.

Q. How did that happen?

A. He was at my house and we got to talking about people—different men—who were talking about the mine being dangerous. He said he didn't feel uneasy, and if these people that were talking would go over it as he did they would know more about it.

Q. It seems as though people had been talking with him about it?

A. Yes, sir.

Q. Who was it?

A. People down at Scarborough..

Q. Did he mention their names?

A. No.

By Delegate Strickling: Q. Where did you see your brother?

A. He staid with me.

Q. At Parral?

A. Yes, sir.

Q. When did he come over here?

A. The day before the explosion.

By Chairman Gartlan: Q. Were you here after the explosion?

A. Yes, sir.

Q. How many dead bodies were taken out?

A. I can't tell you.

Q. How many times has the Parral mine been inspected since you have been there?

A. Twice since I have been there; well, three times.

By Senator Kidd: Q. How deep is the shaft at Parral?

A. 680 feet.

Q. Is that deeper than this one (referring to Stuart)?

A. Yes, sir.

By Attorney General May: Q. Did you have an explosion at Parral last year?

A. Yes, sir; on the 8th of February..

Q. Were you there at that time?

A. No, sir; I went there the following day.

Q. What do you know about the cause of that explosion?

A. Nothing whatever.

Q. Where were you at that time?

A. At Push Run.

By Senator Kidd: Q. You have been working in the mine ever since?

A. Yes, sir.

By Delegate Mitchell: Q. You speak of the state mine inspectors: Who were they?

A. Mr. Pinkney and Mr. Absalom.

Q. Was he in the habit of inspecting both these mines on his trips here?

A. Yes, sir.

Q. Do you know whether he inspected the Stuart mine on his last trip here?

A. I know Mr. Absalom was over here and Mr. Pinkney with him. Mr. Pinkney has been here as much as twice a week.

Q. He is in the employ of the company?

A. Yes, sir; he was formerly a state inspector.

LAWRENCE SHORES, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Lawrence Shores.

Examination by Attorney General May:

Q. What is your occupation?

A. I have been running the engine here at the mine.

Q. Where were you on the day the explosion occurred?

A. I was here—running the engine.

Q. At what time did the explosion occur?

A. The explosion occurred at twenty-five minutes till two.

Q. You may tell just what occurred immediately before that explosion?

A. I had just stopped the cage about fifty feet below the surface. I got a bell to stop the cage. The bell was from the bottom. You can only get a bell from the top or bottom. The bottom bell is an air bell. Just a short time after I got the bell the explosion occurred.

Q. Was it customary to be coming up at that time of the day?

A. It would not have been necessary to give a bell at that time unless something had happened in the shaft to give me that bell.

Q. Was the car loaded or empty?

A. Empty; it was just going to the bottom for a load.

Q. Do you know of any other matters connected with this explosion?

A. No, not concerning anything, I don't think.

Q. Did you ever hear any complaint among the miners about the condition of this mine?

A. No, sir; I never did.

Q. Were you running the engine at the time of the last inspection by the state inspector?

A. No, I was running the generator and fan.

Q. Do you know anything about the laying off of any of the men at that time?

A. I don't know whether they laid them off or not, but the men went back home.

Q. How many men went back home on the day the inspector was there?

A. Several; I don't know just how many.

Q. About how many men were working here at the time of the last inspection?

A. I can't tell you; upwards of one hundred.

Q. Is that the number that staid in the mine the day the inspector was there?

A. I can't tell you. I only heard about it.

Q. How did you hear it?

A. The engineer told me.

Q. How many did he say were there?

- A. Twenty-five or thirty.
- Q. Did they report that morning for work and were sent back?
- A. Yes, sir; they had their working clothes on.
- Q. Was the inspector around at that time?
- A. I did not see him.
- Q. About what time did you see him?
- A. It was around about ten o'clock when I saw him.
- Q. What was he doing when you first saw him?
- A. He was fixing to go down in the mine.
- Q. Who was with him?
- A. Mr. Pinkney.
- Q. Do you know where he came from?
- A. No, sir.
- Q. How long did he stay in there?
- A. I can't tell you. I didn't pay any attention to anything like that.
- Q. Did you ever work in the mine?
- A. Yes, sir; about eight months ago.
- Q. How many people worked in there then?
- A. I believe the most I ever knew of was one hundred and ten.
- Q. About what was the average number?
- A. Any where from seventy-five to eighty.
- Q. What was the condition of that mine at the time you were working there as to the presence of gas, dust and other dangerous materials?
- A. In one part of the mine where I worked there was some gas.
- Q. How did you know there was gas in there?
- A. I flashed it once, is the way I know.
- Q. About what was the quantity?
- A. It was not very much?
- Q. What about the dust?
- A. There was some dust in some places, and in some there was not.
- Q. Who was mine boss when you worked there?
- A. Mr. Linley was part of the time and Will Thompson the balance of the time.
- Q. Did he sprinkle the mine?
- A. I don't know.
- Q. Was there any dust in there?
- A. I never paid any attention to it. I was driving, and I couldn't say whether he did or not.
- Q. What other mines did you ever work in?
- A. I worked in mines in Illinois.
- Q. How long ago?
- A. Six or eight years ago.
- Q. For how long?
- A. About three weeks.
- Q. Where else?
- A. In Kentucky.
- Q. For how long?
- A. About a year.
- Q. What was the condition of these mines at the time you were working in them?
- A. The mines in Kentucky were in pretty bad shape; the mines in Illinois were in first class shape.
- Q. How were they as compared with this one?
- A. When I first worked here it was in good shape. I don't know anything about mines scarcely at all.
- Q. I mean as to gas, dust and other dangerous materials?
- A. This is the first gas mine I ever saw.
- Q. How about fire bosses and other precautionary measures taken?
- A. They had fire bosses there the same as here.
- Q. How were the precautionary measures taken here as compared with Kentucky and Illinois?
- A. About the same.
- Q. How long before this explosion had you worked in this mine?
- A. Six or eight months.

Q. Had you heard any complaint from the men after you worked in there as to any change in conditions?

A. A few.

Q. What changes?

A. They said they believed they would quit; they were scared.

Q. What were they scared about?

A. About some slate, is about all.

Q. About some falls of slate?

A. Yes, sir.

Q. Did you ever hear them make any complaints about gas?

A. Only one fellow.

Q. Who was he?

A. He was a young fellow that came here. I can't think of his name.

Q. How long had he been here?

A. I don't know.

Q. Do you know whether it was a general fear a person would have of a shaft mine, or from practical knowledge?

A. No, sir.

Q. How long ago was that?

A. About three months.

Q. How long had he worked in there?

A. I don't know; I don't know when he came or anything about it.

By Mr. Dillon: Q. I understand that you didn't find any dust of any consequence in the mine?

A. No, sir.

Q. Not sufficient dust to be regarded dangerous?

A. I suppose not; I never heard them say. I don't know how much dust it takes to be dangerous.

Q. Is there any difference in the mine; that is, is one part dry and the other part wet?

A. One place is the wet side. The East side is wet.

Q. On the day the mine inspector was here, do you know whether there were any railroad cars for loading or not?

A. I can't say whether there were or not.

REUBEN DURHAM, a witness of lawful age, being first duly sworn,  
testified as follows:

### Testimony of Reuben Durham.

Examination by Attorney General May.

Q. Where do you live?

A. I live here.

Q. In what business are you engaged?

A. Firing.

Q. Firing for whom?

A. Mr. Dixon.

Q. At what mine?

A. Stuart.

Q. Where were you on the 29th of January last?

A. I was here..

Q. What were you doing?

A. Firing. I had just left here about one o'clock on the day of the explosion.

Q. Did you hear it?

A. Yes, sir.

Q. Did you go down to the place?

A. Yes, sir; but not right away. I went down about 1:30.

Q. What did you find?

A. I didn't find anything.

Q. What did you see?



- A. I saw the shaft was torn up.  
Q. How long had it been since you worked in the mine?  
A. The last work I done in the mine was last May.  
Q. What sort of work were you doing?  
A. Loading coal, shooting coal, etc.  
Q. Why did you quit working in there?  
A. I didn't like it in there. I was scared of the gas.  
Q. What made you scared of the gas?  
A. It was too dangerous.  
Q. Was there gas in there?  
A. Yes, sir.  
Q. Was any effort being made to get rid of it?  
A. I don't know about that.  
Q. How do you know there was gas in there?  
A. I put it off with my light.  
Q. What amount of gas was there—a large or small amount?  
A. Pretty small amount.  
Q. Was there enough to take fire?  
A. Yes, sir.  
Q. Did any one else take fright and quit when you did?  
A. No, sir; not at that time?  
By Senator Kidd: Q. On that day, do you mean you quit for the day?  
A. Yes, sir.  
Q. Was that your turn—to work until one o'clock?  
A. Yes, sir.  
Q. When you heard the explosion what did you think it was?  
A. I thought it was the boiler. I came to the door where I lived and saw it was an explosion—saw the dust coming out of the mine.  
Q. Had any of the men come up out of the mine when you left at one?  
A. Yes, sir.  
Q. All of them?  
A. I don't know whether all of them had or not, but some of them had come up.  
Q. You haven't been down there to work for a good many months?  
A. No, sir; I have been down there a time or two to get some of the men to come up.  
Q. Did you hear any of the men say anything about this mine being dangerous?  
A. Yes, sir.  
Q. Just before this happened?  
A. Yes, sir.  
Q. In what way?  
A. Just like any one else would say it was pretty bad down there.  
By Attorney General May: Q. Is there any one living whom you heard make these statements?  
A. No, sir; they are all dead.  
Q. Have you been down in the mine since the explosion?  
A. No, sir.  
Q. Did you ever work in a mine before you came here?  
A. Yes, sir.  
Q. Where?  
A. In Alabama.  
Q. Were you ever in a shaft or slope mine there?  
A. Yes, sir; slope.  
Q. How were they as compared with this mine as to danger from gas, dust, etc.?  
A. The mine I worked in, there was not supposed to be any gas in it. If there was I didn't see any.  
By Delegate Mitchell: Q. You were firing the morning before the explosion?  
A. Yes, sir.  
Q. You speak about the men saying it was bad down there. Did they state in what particular?  
A. No, sir; I suppose not. Fellows would pass through the boiler house and said it was pretty warm down there. I never paid any attention to it.  
Q. You were firing that morning?

- A. Yes, sir.
- Q. Was the machinery running?
- A. Yes, sir; as far as steam would let it run.
- Q. Was the fan running?
- A. Yes, sir.
- Q. During the whole of the morning?
- A. Yes, sir.
- By Mr. Dillon: Q. Were you digging coal when you encountered gas?
- A. Yes, sir.
- Q. Where?
- A. In Stuart; in the Parral heading.
- Q. It was up in the Parral heading where you encountered the gas?
- A. Yes, sir.
- Q. Were you driving an entry?
- A. No, sir. Old man Dick Lee was driving the entry. I was working for him.
- Q. You didn't find the gas except in that heading?
- A. That was all.
- Q. That is quite usual, isn't it?
- A. No, sir; I never saw it any place else.
- Q. I mean, it is very usual to find gas in headings, isn't it?
- A. Yes, sir.
- Q. You didn't have any explosion did you?
- A. No, sir.
- Q. You speak of some one saying it was bad down there. They didn't state in what way?
- A. No, sir.
- Q. How did they happen to say it?
- A. I didn't pay any attention to it. Fellows would pass through and stop in the room and would be talking. I would not pay any attention to it.
- Q. Who was it that said it was bad down there?
- A. Well, Jim Bradley.
- Q. You don't know what he meant by being bad?
- A. No, sir; I don't know whether he meant bad air or gas.
- Q. Or bad work, or what?
- A. No, sir.
- Q. You really don't know whether he had reference to the mine or not, do you?
- A. No, sir.
- By Attorney General May: Q. Do you know from which place this explosion is supposed to have originated?
- A. No, sir; I really can't say.
- Q. You never heard in which entry they supposed this explosion took place?
- A. No, sir; I never heard them say.
- Q. Do you know at what Bradley worked?
- A. He was a coal miner.
- Q. Do you know in what part of the mine he worked?
- A. In Parral heading; on the Parral side.

W. G. COLBURN, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of W. G. Colburn.

Examination by Attorney General May:

- Q. In what business are you now engaged?
- A. Superintendent of Stuart mine.
- Q. For how long have you been so engaged?
- A. Since December, 1906.
- Q. How long have you been engaged in the mining business?
- A. Practically all my life; ever since I was fifteen years of age.
- Q. How old are you now?

- A. Thirty-one.
- Q. How long since you were down in the mine?
- A. On the 29th of January.
- Q. How long before this explosion occurred on the 29th of January?
- A. About, I would suppose, a half hour.
- Q. What were you doing?
- A. Getting the cage in order.
- Q. The cage was out of order?
- A. Yes, sir.
- Q. What was the matter with the cage?
- A. We had caged a car at the bottom on the left hand cage. The car became untracked and ran off the cage into the timbers and tore off a set of guides.
- Q. As superintendent was it a part of your duties to inspect the mine?
- A. Yes, sir; I saw that the headings were properly driven, and that the men were mining the coal properly, and as to the general safety of the mine. On that morning I found everything in good shape.
- Q. Did you find any gas there that morning?
- A. No, sir; I used a naked lamp.
- Q. What were the indications as to dust?
- A. None.
- Q. Were there any parts of the mine you didn't visit that day?
- A. There were possibly two entries I was not on that day.
- Q. Have they any local name?
- A. Yes, sir; the first right on Parral side, and also the second left on Parral.
- Q. Why didn't you visit them?
- A. There was no one in them on that day.
- Q. Why?
- A. I really don't know why the men were out, but they were in neither one. The contractors were driving entries.
- Q. Why do you call that the Parral side?
- A. It is driven toward the Parral mine to connect with it.
- Q. How long is it?
- A. In the neighborhood of two thousand one hundred feet toward the Parral mine.
- Q. What is the distance of the Parral mine from the Stuart?
- A. From forty-two to forty-four hundred feet.
- Q. How much do you lack of having the mines connected?
- A. About twenty-two hundred feet.
- Q. You didn't examine these two on that day?
- A. No, sir.
- Q. How long before had it been since you examined them?
- A. On Friday before Mr. Pinkney and I were in.
- Q. What was their condition then?
- A. Everything was in very good condition.
- Q. Was there any evidence of gas, dust or other dangerous material or elements?
- A. None whatever.
- Q. Have you been down in the mine since the explosion?
- A. Yes, sir.
- Q. To what extent have you looked over it?
- A. I have been over that which has been traveled since the explosion took place.
- Q. What part has not been traveled?
- A. There is but one.
- Q. Which one is that?
- A. First right on the Parral side.
- Q. That is the one you didn't inspect the last day you were in operation?
- A. Yes, sir; it is full of water now.
- Q. How deep is this shaft?
- A. Five hundred and eighty-five feet.
- Q. How many openings?
- A. One.
- Q. How many men were killed in the mine as the result of the explosion?
- A. Our records show about eighty-four.

Q. How many bodies have been taken out?

A. Eighty-one.

Q. How many men worked in there ordinarily?

A. About eighty-five men.

Q. That is the average number?

A. About that.

Q. Have you made any examination as to the cause of the explosion?

A. Yes, sir.

Q. What examination have you made and with what result?

A. As far as we could get, and tell, it occurred on the third left, Parral side, on the West side, and was caused by a blow-out shot. I state this from the fact that the indications show the force from that direction. The debris was all driven from that direction.

Q. What sort of a shot did you say?

A. A blow out shot—a windy shot.

Q. What kind of a shot is that?

A. That is a shot that does not give any results to a miner in the way of blowing down coal.

Q. What is the cause of it?

A. Being shot on the solid and by not putting in tamping.

Q. Do you know for sure that this explosion was the result of that kind of a shot?

A. I think so. The hole is there, that has been shot.

Q. Did you find the hole?

A. Yes, sir; we found the hole there, that looked as though it had been shot, with the minings from the cutting near the hole. This hole is in room four, third left.

Q. Would a blow-out shot, of itself, be sufficient to cause the explosion that killed all these men, or would it have to be connected with the ignition of gas, etc.?

A. It would be sufficient to create a larger explosion in my judgment by stirring up and drying particles of dust that have accumulated.

Q. It would have to be connected with something else, would it not? The lack of tamping, etc., would have to be connected with dust, or something of that sort?

A. It would be sufficient; that shot alone would be sufficient. If they had a quantity of minings in the room, the shot blowing out would stir up and fill the air with this dust and make an explosion, and that, in connection with the shot, would make a larger explosion—probably enough to stir up all the dust on that entry, and fill the air as it went along with particles of dust and dry it, and make a general explosion.

Q. This, in your judgment, caused this explosion and the death of these men?

A. Yes, sir.

Q. I believe there is only one opening?

A. Yes, sir.

Q. If there had been another opening would the result of this explosion have been any different?

A. No, sir.

Q. Could a different result have been brought about if there had been another opening?

A. None whatever.

By Senator Kidd: Q. When did you commence work?

A. The first of December.

Q. Did you keep a list of the men who worked there?

A. At the office we had

Q. Could you furnish us a copy from your books, giving us the names, etc.?

A. Yes, sir.

Q. When you came there did you reduce the force of men in any of the departments?

A. In a general way I did; yes, sir.

Q. In what respect?

A. In the amount of drivers and some few slate men.

Q. Have you a map of the mine?

A. Yes, sir; but it is not here.

Q. Had you any complaints from the men that day, or the day before the explosion, in any way indicating that they thought the mine was dangerous?

A. No, sir. At this point I would like to state what one told me: A Mr. Mooney came from Mt. Carbon to work and told me the night before that if he liked the mine he would stay indefinitely. I had two machines, and I depended a good deal on that, because I wanted the machines run. I went in his room on the morning of the explosion to see him, and I was with him about three-quarters of an hour. He told me he liked the place very much and would stay with me.

Q. In this room where the windy shot was fired, how far was that from the main entry?

A. About three hundred and fifty feet.

Q. Were any dead persons found in that entry?

A. Yes, sir.

Q. How near the place where the shot was fired?

A. About twenty feet.

Q. How many men were working in there?

A. Three.

Q. Were they all found in there?

A. Yes, sir.

Q. How far is that from the mouth of the shaft?

A. About fifteen hundred feet.

Q. You are satisfied, from your examination, that you have stated the cause of the explosion?

A. Yes, sir.

Q. Did any one else make an examination?

A. Yes, sir.

Q. Who?

A. Mr. Dixon, Mr. Pinkney, Mr. Paul, Mr. Henry and Mr. Hill.

Q. All together?

A. Yes, sir.

By Attorney General May: Q. You say you were there the morning of the explosion?

A. Yes, sir.

Q. Do you know whether the fire boss had gone through that morning?

A. Yes, sir.

Q. Who was he?

A. Jim Westleyhohn.

Q. Where is he?

A. In Stuart.

Q. Do you know whether he had been in that morning?

A. Yes, sir.

Q. What were his duties?

A. To make an examination every morning as to the safety of the mine.

Q. Do you know whether he had made this examination?

A. Yes, sir.

Q. After making his examination what are his duties as to indicating whether or not the mine is in a safe condition for the men to go to work?

A. After going into a room and finding it safe, he marks the room up with the date of the month. If he finds any danger from slate or gas, he puts up a danger sign.

Q. Then if there is no danger sign up the man going to work in the room would conclude that it was safe?

A. Yes, sir.

By Delegate Strickling: Q. Where were the bodies of the men principally found?

A. The majority of the men were found at or near their places.

Q. About what per cent. were at the bottom of the shaft?

A. About two-fifths, I think.

Q. What time do the miners usually eat their dinners in the mine?

A. Between twelve and one o'clock.

Q. How far would the farthest man have to come to get to the bottom of the shaft?

A. From the Parral entry it would be about twenty-one hundred feet.

Q. How many dinner buckets were found near these men at the bottom of the shaft or did you notice?

A. I didn't notice; but not as many as there were men.

Q. Who was the mine boss?

A. H. S. Collburn, my brother.

Q. Was he killed in this explosion?

A. He was.

Q. Where was he found?

A. He was found at the sump, at the bottom of the pit.

Q. You didn't find any gas in there that morning that was dangerous?

A. I did not.

By Senator Kidd: Q. Did your fan furnish sufficient air to render all the working places safe?

A. Yes, sir; we could have speeded the fan up if it had been necessary.

Q. Is your fan of ample capacity?

A. Yes, sir; ten times that much.

Q. Is it a good fan?

A. Yes, sir; one of the best fans made.

Q. Was there anything left undone, as far as you were able to discover, which would have made the mine more safe?

A. Nothing at all.

Q. When was Mr. Pinkney last in the mine?

A. On Friday before the explosion.

Q. Were you around with him?

A. Yes, sir; I was.

Q. Did he examine the mine thoroughly?

A. Yes, sir, he did.

Q. Did you have safety lamps?

A. Yes, sir.

Q. Was his report of it good?

A. Yes, sir; O. K.

By Attorney General May: Q. From the bottom of the shaft how long would it take to go through all the entries and rooms?

A. About two and one half hours.

By Senator Kidd: Q. How was the temperature in the mine?

A. Well, for instance, I had a conversation with Tom Lowney, who was driving the Parral heading. I had been there on Monday before, looking around as to general conditions, and I asked him about the air and he told me that I needn't worry about the air any in his place—that it was impossible for them to sit down and eat, or anything, without becoming chilled, and that they called one of the places "Chillicothe" because it was so cold.

By Attorney General May: Q. Who is Tom Lowney?

A. The man who was driving Parral entry. He was killed.

By Chairman Gartlan: Q. Had the fan been shut down for any length of time immediately before the explosion?

A. Yes, sir; four days before. We started the fan up Saturday night before the explosion. It was shut down to repair the shaft. We shut it down so the men could work in the shaft with some comfort. They could not work in there with the fan going; it was too cool. There were no men working in the mine while the fan was shut down.

Q. When was the district mine inspector there?

A. Mr. Absalom was there on December 21st.

Q. Where did he come from to this place?

A. I don't know; he came in very unexpectedly; we didn't know he was coming.

Q. When did you first know he was here?

A. I can't say.

Q. How long before he went into the mine?

A. Possibly an hour.

Q. How many men were working that day?

A. In the neighborhood of twenty.

Q. How many were working the day before?

A. I can't say without looking at the records.

Q. What would be your recollection?

A. I would not like to say without looking at the records.

Q. Can you make an estimate?

A. Possibly that or more.

By Attorney General May: Q. Why were more men not working that day?

A. We were short of cars.

By Mr. Dillon: Q. Does that frequently happen?

A. Yes, sir; particularly along about Christmas time.

Q. Was there any effort made to conceal anything from Mr. Absalom?

A. No, sir.

Q. When had he been there prior to this visit in December?

A. Not in my time, because I had just come there.

Q. Did he ask you the number of men working there?

A. Yes, sir; I gave him the number of men.

Q. Did he make a thorough inspection?

A. He did.

By Delegate Duty: Q. Did he request you not to work more than twenty men?

A. He didn't say anything about that.

Q. Did he ever say you could work more than that number?

A. No, sir.

Q. You never discussed that?

A. No, sir.

On motion of Mr. Kidd the Committee adjourned until Wednesday, February 13th, 1907, at 7:30 p. m., to meet in the Capitol at Charleston.

WEDNESDAY, FEBRUARY 13, 1907.

The Committee met at the Governor's reception room, in the capitol building, Charleston, West Virginia, on Wednesday, February 13, 1907, at 7:30 o'clock p. m.

Present: Messrs. Gartlan, (chairman) Kidd, Duty, Strickling and Mitchell, being all the members of the committee;

Hon. C. W. May, Attorney General, on behalf of the State; and

Hon. C. W. Dillon, on behalf of the mine owners.

Mr. Louis E. Schrader was appointed Secretary and Stenographer *pro tem*.

The meeting was called to order by Chairman Gartlan.

Mr. Kidd: Mr. Chairman, I want to make a suggestion to the Committee. It may be that there will be considerable evidence to be taken in this matter, and, of course, we will have to do so in an orderly manner, and I want to make this suggestion: That we exclude from the room, while taking evidence, all persons except the witnesses that we may want to call, the mine inspectors and assistants, who are under investigation, and any attorney that they may want to have, the mine owners and their attorneys, and the reporters for newspapers, and that we exclude other people, so as not to fill up the room. I make this as a motion.

The motion was put by the Chair and carried.

The Chairman: Newspaper men are here, and, so far as I am concerned, they are perfectly welcome to be here, but on condition that they give a statement or report of the proceedings, and that they ask the

papers not to make any comments on the investigation until after it is over. If they do, we will have to exclude the offending parties. We do not want any comment on the investigation until the Committee submits the results of the investigation; then I am willing for them to criticise as much as they want; but up to that time I ask the newspaper men to refrain from doing anything of that kind.

The Committee then proceeded to hear the testimony of sundry witnesses, as follows:

FRED DIXON, Jr., a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Fred Dixon, Jr.

Examination by Attorney General May:

Q. What is your name?

A. Fred Dixon, Jr.

Q. Where do you live?

A. At Parral.

Q. What is your age?

A. Age, thirty-two.

Q. What is your business?

A. Superintendent of the mine.

Q. What mine?

A. Parral mine.

Q. How long have you been acting in that capacity?

A. Probably for twelve years.

Q. At the same mine?

A. No, sir; at different places.

Q. Are you acquainted with the Stuart mine?

A. I am.

Q. To what extent are you acquainted with it?

A. I had charge of the mine for about eighteen months?

Q. What eighteen months?

A. Eighteen months prior to December 6th, last.

Q. What were your duties as superintendent of the mine, Mr. Dixon?

A. To look after the operating department of the mine.

Q. As such superintendent did you become acquainted with the mine?

A. I did.

Q. Its different openings, entries, and so forth?

A. Yes, sir.

Q. Have you looked at the map that is now before you?

A. I have.

Q. Is that a map of the mine?

A. That is a map of the Stuart mine; yes, sir.

[The map referred to—marked "Map of Stuart mine, Exhibit No. 1"—was here produced to be used in locating points in the mine referred to by witnesses.]

Q. When were you last in that mine prior to January 29th last?

A. December 4th or 5th.

Q. When were you last in that mine?

A. I was in there the night of the 11th at twelve o'clock.

Q. When were you in there first after the 29th of January?

Witness: Do you mean into the mine or into the shaft?

Attorney General May: Into it or about it?

A. I was there at the top of the shaft at about 2 o'clock on the 29th.

Q. When were you first down in the mine?

A. I was first in the mine about, I think, the 30th; I don't exactly remember the date.



Q. The day following the explosion?

A. Probably the night following; yes, sir; at the foot of the shaft.

Q. Had there anybody been in prior to your going into it?

A. Yes, sir.

Q. How long before?

A. I don't remember the exact number of hours; there were some parties went down in the bucket to the bottom of the shaft.

Q. Who were the first parties that went through the mine, after the explosion, and made any investigation?

A. I couldn't say positively, because I wasn't there; I know only from hearsay.

Q. Who do you understand to be the ones?

A. I understood Mr. Pinkney, Mr. Absalom, Mr. Paul, Mr. Dixon and several others.

Q. Mr. Dixon, to whom you refer, is your father, Samuel Dixon?

A. Yes, sir.

Q. How long before you got in there?

A. I was down there on the night of the 30th.

Q. How long had it been since they were in there before you went in?

A. I couldn't say definitely.

Q. About how long?

A. Well, I would say probably six or eight hours.

Q. Had there been any bodies removed when you went in?

A. Yes, sir.

Q. Did you help remove any bodies?

A. I did.

Q. How many?

A. Probably eight or ten?

Q. Mr. Dixon, can you take this map and indicate on it the places where the bodies of the men were found?

A. I can of those whom I found—whom I helped to remove.

Q. Please do that.

A. Here is the bottom of the shaft. (Indicating on map of Stuart mine—Exhibit No. 1.)

Q. How many bodies did you find there?

A. Three; I was present when three were found.

Q. What was their condition when you found them?

A. One of them was mangled pretty badly by timber falling on him—two of them were; the other one was mangled very little; he was in what we call the sump, at the foot of the cage landing, below. That is what we call the sump; it is a water hole, with lots of water.

Q. Where you mark the number "1" you found three bodies?

A. Yes, sir; to my knowledge.

Q. Where is the next one?

A. One man on what we call the first left, at the mouth of No. 6 room.

Attorney General May: Mark that on the map as "No. 2."

[The witness marked the point on the map as requested.]

Q. How many did you find there?

A. One.

Q. What was its condition?

A. It looked perfectly natural.

Q. Where was the next one?

A. There were two on the second left.

Attorney General May: Mark that as "No. 3" on the map.

[The witness marked the point on the map as requested.]

Q. Two bodies?

A. Two bodies; yes, sir.

Q. What was their condition?

A. They were, you might say, natural; they were not injured at all; both were lying on their faces.

Q. Where is the next?

A. There was one man found on the entry—what we call the east entry.

Q. What was its condition?

A. Apparently natural.

Q. Next?

A. Two men found below the trap door.

Attorney General May:—Mark that as "No. 5."

[The witness marked the point on the map as requested.]

Q. Give their condition?

A. They were the same.

Q. Next.

A. That is all where I was present when they were found.

Q. That is all that you found?

A. Yes, sir.

Q. Did you make any examination, Mr. Dixon, to ascertain the cause of the explosion?

A. Yes, sir; I traveled the mine.

Q. To what extent did you travel it?

A. Practically every place in the pit.

Q. What do you mean by the "pit"?

A. I mean the shaft.

Q. You mean the entire mine?

A. Yes, sir; with the exception probably of the second right on the Parral side.

Q. What did you find?

A. We found the mine in very bad condition on the west side—debris thrown about.

Q. What had caused that?

A. Force of some kind.

Q. In your judgment what sort of force was it?

A. It could be caused by force of gas.

Q. You mean an explosion?

A. Yes, sir.

Q. Did you make any investigation or examination to ascertain what caused that explosion?

A. So far as we could, yes, sir.

Q. What was the result of your investigation?

A. My opinion is that it was caused by the igniting of gas.

Q. How do you think that came to ignite?

A. It must have been ignited by a light—a naked light. It could have been ignited by a shot.

Q. It could have been ignited by a shot?

A. Yes, sir.

Q. What produces gas in a mine, Mr. Dixon?

A. I couldn't answer that question.

Q. Couldn't you explain anything about the production of it, or the existence of it in a mine?

A. No, sir.

Q. You merely know that it exists?

A. Yes, sir; I know when it is there.

Q. Is there any way of determining when or how it is likely to occur or be found?

A. You can very easily detect it if you have a safety lamp, if it is there.

Q. Does it come unawares in a mine—suddenly—or does it accumulate gradually?

A. You take after firing a shot, very often, the cuts that were shot will ignite, or the gas that the cuts produce. There is often times that the roof of the mine may sag, and the gas could accumulate above this, and if that should fall it would release that pocket of gas and get out into the workings, if there was current enough to carry it off.

Q. Is there gas in all mines of this character?

A. There is gas in the Stuart mine and the Parral mine.

Q. At all times?

A. A certain amount, yes, sir.

- Q. To what extent?
- A. Well, I couldn't say as to what extent. It is not very great.
- Q. Is there any means of avoiding its presence in a mine?
- A. I don't really think there is in this mine.
- Q. What means were adopted, or have been adopted by you there, Mr. Dixon, to avoid the presence of gas in the mine?
- A. By keeping the ventilation up to the face of the workings.
- Q. How do you ventilate?
- A. We have a Cappell fan at the shaft head, which forces the air into the mine.
- Q. By the use of this fan, can you prevent the accumulation of gas in a mine entirely?
- A. The use of the fan is to carry off the gas as it is produced.
- Q. That is what I mean.
- A. Yes, sir.
- Q. You can do that with the use of the fan?
- A. We do it so far as we can; yes, sir.
- Q. Is it possible to entirely do so?
- A. Well, I don't think where a mine is producing gas regularly, that you could carry it off and keep it away from the face, because it accumulates steadily; it should be carried off with the air as it passes.
- Q. It should be?
- A. Yes, sir.
- Q. Can it be done?
- A. It is carried off; you can't carry it all off because it comes as it is made, or comes out of the coal.
- Q. Does it come out of the coal as the coal is shot down, or does it accumulate in there whether you are mining or not?
- A. If the coal is making gas it will accumulate whether you are mining or not.
- Q. If it is a character of coal that produces gas?
- A. Yes, sir.
- Q. You hadn't been in this mine for something over a month before this explosion?
- A. No, sir; December 4th or 5th, I think, was the last day that I was in, prior to the explosion.
- Q. You had changed your position as superintendent from that mine to the mine at Parral?
- A. Yes, sir; I was superintendent of Parral mine at the time of this trouble.
- Q. Why did you make the change?
- A. I had three mines at that point, and the work was a little too heavy for one man to handle it, and another superintendent was put there in charge of the mine.
- Q. Merely to relieve you?
- A. Merely to relieve me of the extra work; yes, sir.
- Q. During the time you were superintendent did you discover the presence of gas or other explosives in this mine?
- A. Yes, sir; we knew that we had gas there.
- Q. What was done, if anything, to avoid its exploding?
- A. We used the ventilation—used the air and kept it to the faces as near as possible.
- Q. That was done, was it, to an extent to carry off the gas to prevent this danger?
- A. Yes, sir.
- Q. Was every means used to that end that you could use?
- A. Everything possible; yes, sir.
- By Delegate Strickling: Q. Is it possible to discover the presence of gas—that is, so much that it is dangerous—without one of these safety lamps?
- A. Without a safety lamp? No, sir; unless you use a naked light and flash it.
- Q. That is pretty dangerous?
- A. Rather a dangerous undertaking; yes, sir.
- Q. At the time you were superintendent of this mine was your ventilation adjusted so as to have a current in each opening?
- A. Yes, sir.

- By Dr. Dillon: Q. What kind of a fan is it you have?  
A. It is a Clifford Cappel fan.  
Q. What size?  
A. It is an eighteen foot fan.  
Q. What is its capacity, do you know?  
A. I do not, no, sir.  
Q. Was that fan sufficient to furnish the necessary air for that mine?  
A. Yes, sir.  
Q. Was it more than sufficient?  
A. Yes, sir. This fan is only run at, say, eighty-five revolutions per minute, while it can be made to run at two hundred and fifty a minute.  
Q. Did eighty-five revolutions furnish sufficient air?  
A. Yes, sir; too much.  
Q. What do you mean by "too much"?  
A. I mean that a great number of the miners in that pit complained of its being so cold that they couldn't work unless they wore their coats, and it would freeze them, they claimed.  
Q. Would the eighty-five revolutions force the air to all the working places?  
A. Yes, sir.  
Q. Did you ever have any complaint of lack of air by the miners and workers in the mine?  
A. No, sir.  
Q. About how often did you go in the mine while you were superintendent?  
A. Well, I couldn't say definitely; sometimes I was in the mine all day perhaps every day in the week, and at other times it would be once or twice a week.  
Q. You had, at the same time, two other mines to look after?  
A. Yes, sir.  
Q. You had, in addition to yourself as superintendent, mine foremen, did you?  
A. A mine foreman at each place; yes, sir.  
Q. And it was his duty also to look after the mine?  
A. His duty was to look after the shaft or the drift that he was in charge of.  
Q. Did you have a fire boss?  
A. Yes, sir; a fire boss at the two shafts.  
Q. Did he inspect the mine every day?  
A. He inspected the mine daily; yes, sir. This is a fire boss's report. (Handing paper to counsel.)  
Q. For what day?  
A. The 28th and 29th of January.  
Q. Was he required to make a written report?  
A. A daily report, yes, sir.  
By Senator Kidd: Q. Was that fire boss killed in the explosion?  
A. Not this fire boss; no, sir.  
By Mr. Dillon: Q. He was required to make a written report of the condition of the mine each day?  
A. Yes, sir.  
Q. And the two reports you submit, are the reports made on the 28th and 29th—the day before and the day of the explosion?  
A. Yes, sir.  
Q. You file these as part of your deposition?  
A. I do.

[The two reports just referred to are herewith filed and made part hereof, the report for January 28th being marked "Fire Boss's Report, January 28th, Exhibit No. 2," and the report for January 29th being marked "Fire Boss's Report, January 29th, Exhibit No. 3."]\*

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\*The stenographer subsequently reported to the Committee that these original reports were returned to the party introducing them with the understanding that certified copies were to be made and filed with the Committee. Up to the time of the preparation of this portion of the record for the printer, these copies had not been received. If furnished later they will appear in the appendix to this volume.

By Delegate Strickling: Q. Was the fire boss killed in this explosion?

A. No, sir; this fire boss was not.

By Mr. Dillon: Q. He goes in before the miners do in the morning?

A. Yes, sir.

Q. How long does he usually stay in the mine?

A. He goes in as a general rule anywhere from three to four o'clock, and stays there until twelve, one and two.

Q. Do you know what time he came out on the day of the explosion?

A. He came out about one o'clock, I think; that is hearsay. His report should show it.

By Senator Kidd: Q. Do you mean three or four o'clock in the morning?

A. Yes, he goes in at that time.

By Mr. Dillon: Q. Was your fan kept running night and day?

A. It was while the mine was in operation.

Q. You never ran your mine and worked any day when the fan was not running?

A. No, sir.

By Senator Kidd: Q. How many men did you work in the mine other than those who were actually engaged in mining—for other purposes, I mean, such as cleaning away dust?

A. That depended on the condition of the mine. If there were slate falls, or any extra work to be done, it required extra men to do it.

Q. You had a sufficient force there to keep all that out of the way, and to prohibit the accumulation of dust, did you, while you were there?

A. Yes, sir; we tried to have.

Q. How would you dampen those rooms, or how did you?

A. They could be dampened by a water-box with perforated holes in it.

Q. Is that what you used in this mine?

A. That is what we used a few times before I left there; yes, sir.

By Attorney General May: Q. Where did you get these reports?

A. I got those from the office of the Stuart Colliery Company at Stuart.

Q. When?

A. Yesterday afternoon about three o'clock.

Q. At the place where he filed them?

A. Yes, sir.

Q. Now, this second provision here, which says, "What time did you report condition of mine," which is answered by "6:30 a. m."—he is supposed to have come out at that time to report the condition of the mine?

A. He is supposed to report to the mine foreman and mark on his blackboard whether the mine is O. K. or not.

By Senator Kidd: Q. Where was the blackboard kept?

A. The blackboard was kept at the foot of the steps at the head of the shaft.

By Attorney General May: Q. I wish you would explain to the committee, if you can, how this routine was gone through with in the morning?

A. The fire boss is supposed to travel all gaseous parts of the mine to see if there is any accumulation of gas, to see if there are any slate falls or anything that would prohibit the men from working the next day, and to report the condition to the mine foreman.

Q. At what time in the day is he supposed to do that?

A. He is supposed to report in the morning before the men go in the mine.

Q. What time do they usually go in the mine?

A. Anywhere from 6:30 to 7:30.

Q. If he makes a report that the mine is O. K., of course the men go in and go to work?

A. Yes, sir.

Q. Are they directed to go in in the event that he does not so report?

A. No, sir.

Q. To whom does he make this report?

A. He makes this report to the mine foreman.

Q. Where he is stationed?

A. He is supposed to be at the head of the shaft.

By Delegate Strickling: Q. Who was the mine foreman on the day the explosion occurred?

A. Mr. Coleman.

SAMUEL DIXON, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Samuel Dixon.

Examination by Attorney General May:

Q. What is your name?

A. Samuel Dixon.

Q. Where do you live?

A. I live at Prudence, West Virginia.

Q. What is your business, Mr. Dixon?

A. I am general manager of the collieries in New River District.

Q. What relation do you bear to the Stuart mine?

A. I am the general manager of the Stuart Colliery Company.

Q. Where were you on the 29th of January last?

A. I was between New York and Thurmond.

Q. What time did you get to Thurmond?

A. I got to Thurmond on the morning of the 30th, about two o'clock.

Q. How long after this explosion was it before you got to the mine?

A. About fifteen hours—fourteen or fifteen hours.

Q. Had anybody been down in it when you got there?

A. No.

Q. Who was the first party or parties that went into it?

A. The first parties that got to the bottom—which was some time during the day of the 30th—was Mr. Pinkney and Mr. Absalom and Mr. Tom Davis.

Q. Did they go over the mine any after they got to the bottom, that you know of?

A. No, I think they just landed at the bottom and didn't go over the mine.

Q. How long before you got down there?

A. I suppose I got down there an hour afterward.

Q. Did you go around the mine?

A. No, we just went around the pit bottom, possibly seventy-five feet each side, possibly a hundred.

Q. Have you since that time been over the mine?

A. Yes; I have been over a portion of it only.

Q. Will you take this map, Mr. Dixon, which I believe is a map of the mine, and indicate by figures what portion of it you visited and what you found at those places?

A. I have only been on the west or Parral side. I went up to the head of the Parral heading, and the head of the third right, third left, second left and first left, and I think the first right on the main east. I have not been in that other territory. [Indicating on map.]

Q. Why haven't you visited that portion of it?

A. That is on the dip side. Here seemed to be the occasion of the trouble, and here is where the men were—at these four points. [Indicating on map.]

Q. Will you kindly tell us where you found the men, the number, and the condition you found them in, starting with No. 6?

[Witness marks "West" and "East" on map.]

A. There were several men—three men, I think—in the first right on the main east. When I got to the bottom of the pit there was thirteen bodies on the east side of the pit, and on the west side I think there were twenty-seven to twenty-eight, all in the space of one hundred and fifty feet. The bodies on the east side were badly burned, but not dismembered; on the west side, apart from the explosion, the bodies were all badly mangled.

Q. How do you account for that, Mr. Dixon, being mangled on one side and not on the other?

A. The explosion had evidently come from the west, and the moment it struck the cold fresh air at the bottom of the pit it got greater force and velocity and was more destructive. Now, when it passed through underneath that fall of water in the pit, the flame passed on over, and in passing over pushed over within possibly a thousand feet beyond, and caught these men on the east side and burned them. On the other side it not only burned them but mangled them. It pushed past the pit bottom, and if it had been possible for that to have extended to another opening at that point, it would have extended clear through.

Q. You mean if there had been an opening that reached out to the surface?

A. Yes, sir.

Q. What effect would it have had on that other one?

A. It would have been equally as destructive on the second one. The explosion came from the west and as it passed under the pit it went up, but it also went over, and then that rebound came, which continued the blow up the pit for at least a minute and a half or two minutes. Some of the bodies on the east side had been carried back. As an evidence of that on the west side, a piece of the brattice was left up like a wall, and the current had passed all that wall, and when the current came back, it carried five bodies, piling them together on the west side of the pit, showing that the rebound was a terrific one as well as the blast.

Q. At the pit you found how many bodies all told?

A. About fifty-eight bodies.

Q. At what other place did you find any bodies, Mr Dixon?

A. I think there were five in the head of the Parral heading or possibly seven. It is marked seven. There were three in the heading of the third left.

Q. What number did you mark that?

A. I see it is marked "3." And two men were found in the head of the second left, marked "No. 9."

Q. Did you find any others?

A. That is all I found.

Q. Do you have any means of knowing where any others were found?

A. I think there were two found in the second right on the second right of the main east. I will mark that "No. 10."

Q. What is your information as to the finding of others?

A. There was one man found—the trackman was found on the range-way on the first left. "No. 11" I will mark it.

Q. You don't know of any others?

A. There were three found—[Interrupted.]

Q. All told, how many men were found in there?

A. If I am correctly advised I think we have taken out eighty-one.

Q. Do you know whether you have them all out or not?

A. I think we have. There are two bodies not identified; I think there are two bodies so badly mutilated they cannot be identified.

Q. What is your information as to the number that were killed?

A. Eighty-one.

By Delegate Duty: Q. I would like to know if Mr. Dixon can state where the explosion originated.

Witness: The evidence would be that it originated over here in this part of the mine, [indicating]—the third left on Parral. Everything would tend to show that the blast came out here. It is badly disturbed; more trouble there; some falls, and it would indicate that there is where it commenced. For instance, there was a pair of mules situated just below the mouth of that entry; one mule was seventy-five feet ahead of the other and the harness from that lead mule was seventy-five feet ahead of the mule; so that it killed two mules and blew one of them seventy-five feet ahead and tore the harness off that first mule and carried it seventy-five feet farther; so that in walking along that entry you found the harness, then the mule, and then the other mule with harness on it, showing that it came down that way.

By Senator Kidd: Q. If the opening had reached into the Parral mine it would have exploded that, too, would it?

A. I am sure it would. The terrific force of that explosion was such that

I am certain if it had been connected it would have lost Parral pit.

By Attorney General May: Q. What, in your judgment, from your investigation there, produced that explosion?

A. Well, it must have been a gas explosion, begun by either a shot—I should judge a shot in Dick Lee's place—the fourth room on the third left.

Q. Why did you reach that conclusion?

A. I was up in the head of that place, and Dick had a cut made, and in front of his cutting laid all the minings produced by that cutting, and he had three holes drilled; one of them, to me, looked as though it had been shot, and if it had been shot it was by a windy shot without being tamped, and it looked to me as though that shot had been fired, and that, together with the gas, produced the explosion.

Q. Could the amount of gas necessary to produce that explosion be present in that mine by accumulation after the fire boss had visited the mine that morning?

A. It is the fire boss's duty every morning at 3:30 or 4 o'clock to go around every place in that pit, and report back at the pit top in time to meet the bank boss; he then O. K.'s every place if he finds no gas and everything is O. K. If he finds every place O. K. but one, he says all the rest of the mine can work but that man is not permitted to work. During that morning I understand the cage-way had been in trouble, two guides having been torn up, and the pit was idle two hours. The men all assemble at the bottom; trappers, of course, that is the first thing they do; until that trouble is cleared all the cars in the bank are loaded; there are no empties. It is just possible the trappers may have left their doors open. The trapper, of course, will find his way to the pit bottom first; then the miners following on down, finding nothing done, go to the pit bottom, and it may have been that short-circuited because of the trap doors being left open. If that was the case, the current, of course, would take the shortest course back to the return.

Q. Then it is possible for the gas to accumulate there after 5 o'clock in the morning, up to this time, sufficient to produce this explosion?

A. Oh, yes; yes.

Q. Do you know any means or method that could be adopted that would prevent the gas accumulation during that period of time, provided it had accumulated in that way?

A. Gas can only be removed by a current of air, and if the trap doors which convey the air around are not kept shut, then the air course is not a perfect one; the air takes the shortest cut, and doors are put up for the purpose of conveying the air around the working.

Q. Whose duty is it to look after the trap doors?

A. The mine foreman has charge of the trapper.

Q. He has what you call "trappers?"

A. Yes, sir; boys or men employed for the purpose of keeping these doors shut, opening them to let the teams through, or the motor through, and then shutting them.

Q. That is the duty of these parties placed in the mine for that purpose, to look after those doors?

A. Yes.

Q. If one of them should neglect his duty and leave one of them open, that would change the current of air, would it?

A. Yes.

Q. And that change of the current of air would be possible in some instances to permit the accumulation of gas?

A. Some gas; gas accumulates; it depends on the atmospheric pressure. Some days there is a good deal more gas than others. It depends altogether on the atmospheric pressure; a change in the atmosphere means the getting up of more gas in the mine.

Q. I understand the mine foreman gives his directions to the trappers, then if they go in and after they go in, he has got to depend on them as to whether they do this or not?

A. Yes, sir.



Q. How was your air in that mine, Mr. Dixon?

A. We had a Cappell fan running at slow speed.

Q. Why was it running at slow speed?

A. Because the mine was so small that it didn't need to run very fast to furnish all of the air absolutely necessary to operate it.

Q. How old is this mine?

A. About two years—two and a half, possibly.

Q. What was its capacity?

A. The capacity of the mine is three hundred tons a day.

By Mr. Dillon: Q. What system had you of conducting the air up to the face of the headings?

A. Double entry; the map shows it; triple around the main and double for cross entries.

Q. What were used for brattices?

A. Brattice was only needed to be used in the heads of the entries, between one breakthrough and another; the breakthroughs would indicate here on the map that they are pretty close.

By Attorney General May: Q. What is the scale of this map?

A. One inch to the hundred feet, and very few breakthroughs there seem to be over sixty-five feet apart; some of them less.

By Mr. Dillon: Q. Is that mine properly laid out, Mr. Dixon?

A. I consider that that mine is laid out on practical lines.

Q. Have you had much experience in that matter of laying out mines, in and about mines?

A. I have been in the coal business in West Virginia, in Fayette county, for twenty-eight years.

Q. Constantly.

A. Constantly.

Q. Have you opened or assisted in opening or laying out many mines yourself?

A. I think I have opened up possibly twenty, twenty-four or twenty-five.

Q. Were the appliances for safety and methods used at this mine equal to the other mines you have?

A. This colliery is splendidly equipped with up-to-date machinery of all kinds.

By Attorney General May: Q. When was the mine inspector there last at that mine that you know of?

A. I don't know.

By Senator Kidd: Q. When had you been down in this mine before the explosion?

A. I don't suppose I had been down in that mine for five months.

Q. There was no complaint to you, was there, about anything being wrong?

A. No complaints.

By Delegate Duty: Q. Mr. Dixon, you spoke of there being a wreck in the shaft, and slide; at what time in the day was that?

A. I think it was about 11 o'clock.

Q. On the day of the explosion?

A. Yes.

Q. Would that wreck in the shaft in any way hinder the passage of the air from the fan?

A. Not in the airway at all; that is, in the winding compartments.

Q. Would not obstruct it any?

Q. None at all. The shaft has three compartments—two winding and one for air.

By Delegate Strickling: Q. Is this mine so ventilated that the direct current into the mine does not interfere with the back current coming out of the mine?

A. Oh, yes; there are two separate and distinct passages. It goes down, goes around and then up the other side the same way.

By Senator Kidd: Q. A passageway for the escaping air?

A. Yes.

By Delegate Mitchell: Q. Is it your opinion that a sufficient current—a pressure of an additional atmosphere—was sufficiently powerful to prevent all explosions without accidentally striking a pocket of gas?

A. That fan is large enough to carry off any gas that might be made any

place in that mine if it is carried around to the spot to reach it. If the air is carried off—if gas is made up in the second left and you get that current of air around by that second left, it will carry off all the gas that it makes. Gas is made continuously. If, however, the door there was left open, that door, if shut, would force the air to go the full circuit. If that door is let open, the air takes the short circuit back out.

Q. I understand that, but as a remedy, to correct explosions, was the object of my question: Whether or not a well conducted air current is not sufficient to prevent explosions?

A. Yes.

By Attorney General May: Q. Then, Mr. Dixon, you mean by that answer to say that if all the trap-doors had been kept in proper position, and the men in there had discharged their duties in compliance with their orders, that the air was sufficient to prevent this explosion? Is that what you mean by that answer?

A. I mean that exactly.

Q. Under your rules and instructions for the government of your mines is that your effort and undertaking?

A. Those are our rules and those are the instructions.

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ADAM LINLEY, a witness of lawful age, having been first duly sworn, testified as follows:

### Testimony of Adam Linley.

Examination by Attorney General May:

Q. Where do you live, Mr. Linley?

A. I live at East Lynn, Wayne county.

Q. How long have you lived there?

A. I have been there about two months now.

Q. In what business are you engaged there?

A. Mine foreman.

Q. How long have you been acting in the capacity of mine foreman?

A. Twenty-two years.

Q. Where were you before you went to East Lynn?

A. I was at Stuart.

Q. How long did you work there?

A. Eight months exactly.

Q. When did you leave?

A. I left there on the 5th of December.

Q. As mine foreman at the Stuart mine what were your duties?

A. I was to take full control of the mine.

Q. In what respect?

A. To see that everything was kept in good condition.

Q. Did you have charge of the mine?

A. I had full control of it.

Q. You gave directions and orders to the men as to their duties and so forth?

A. Yes, sir.

Q. What was the condition of this mine when you left there?

A. The mine was in as good condition as any mine in West Virginia.

Q. Did you ever notice any presence of gas in that mine during the time you worked there?

A. Well, we saw a little of it, but it was mighty easy to control; we had all the facilities to control it.

Q. And did control it while you were there?

A. Yes, sir.

Q. You haven't been there since this explosion?

A. No, sir; I haven't.

By Senator Kidd: Q. You had worked there eight months?

A. Yes, sir.

Q. In the capacity of mine boss all the time?

A. Yes, sir.

Q. Who was superintendent of the mine while you were there?

A. Mr. Fred Dixon.

By Delegate Strickling: Q. Did you notice the presence of gas in any one part of the mine more than another part?

A. No, sir.

By Mr. Dillon: Q. Were you supplied with all necessary material and facilities?

A. With all the facilities that a man needed to run the mine.

Q. It was your duty to call for that?

A. Anything I called for, I got it, and I always made a daily statement of everything that went on, and anything that I wanted I put it on my daily reports, and I got it.

Q. The fan that is there is one of the best makes, isn't it?

A. Yes, sir; the best fan, I suppose, that is manufactured.

Q. Did that fan make and produce air enough to render the mine safe?

A. Yes, sir.

Q. Did you ever hear any complaints on the part of the miners for a lack of air?

A. There wasn't any kick at all; I had all the air that was necessary to run the mine.

Q. The fan had the capacity to give it as much as you wanted, did it?

A. Yes, sir; we could have got more if it had been necessary, but we didn't need it. All there was to it was to speed the fan up a little in case we required any more than what was necessary for the capacity of the mine.

Q. Is that mine laid out on improved practical methods?

A. Yes, sir.

Q. Was the air conducted around to all the working places in a proper manner?

A. Yes, sir; I had a ten-foot wall in every breakthrough in the mine, built with rock.

Q. In conducting the air up to the working places did you use brattice cloth?

A. Yes, sir.

Q. Was that according to the best methods?

A. According to the mining laws.

By Delegate Mitchell: Q. Do you have your men divided in different gangs for different work?

A. Yes, sir.

Q. You have trappers?

A. Yes, sir.

Q. Then you do have men in addition to those trappers who look after the air-ways?

A. Yes, sir.

Q. How many men did you work for that purpose in that mine?

A. I was working fourteen when I left there.

Q. Do you believe that you were working too many?

A. I think I was working really too many at the time when I left there, because I got everything in good condition. I had everything in what I thought was practical shape.

Q. Those men, it is their duty to look after instructions?

A. I looked after them myself; I didn't depend on anyone else only myself. I went through the air courses every day of my life.

Q. What is their work then?

A. Their work was to work under my instructions by bratticing up breakthroughs, cleaning up falls and laying track, or cleaning up—anything I wanted them to do. And in regards to traveling air courses, I traveled them every day myself and kept them in good condition; and those men—the fourteen—were not exclusively employed for the purpose of keeping the airways clear; not altogether; it wasn't necessary to keep that many men to look after the air courses.

By Senator Kidd: Q. Where had you worked before you went into this mine as a boss?

A. I worked on Dry Fork for the Berkeley and White people.

Q. Was that a shaft mine?

A. No, sir; drift.

Q. In this shaft mine, who furnished the powder for the miners, that they blasted with?

A. I suppose the company furnished it.

Q. How much did you let a man take in at a time?

A. I allowed a man what required him to run ten hours; he took in a flask; some took half a gallon.

Q. That was brought down from above?

A. Yes, sir.

Q. Did you have any accumulation of powder or dynamite or anything, anywhere in the mine?

A. No, sir; I only allowed twelve sticks of dynamite to go in the mine at one time.

Q. They didn't slip in any, and have too much?

A. No, sir; I used to be on top of the shaft every morning at a quarter after six; I used to be on top of the shaft to see what went in.

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WILLIAM RAY, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of William Ray.

Examination by Attorney General May:

Q. Where do you live?

A. I don't hardly know.

Q. You don't know?

A. I am living down here now; I haven't got any home.

Q. Where do you call home?

A. I was born in North Carolina.

Q. Where are you working?

A. I am not working any place now; I was working at Stuart.

Q. How long had you been working there?

A. About two years.

Q. What did you do there?

A. I was running the pumps at night part of the time and part of the time I was cage driver.

Q. How were you running the pumps?

A. I was supposed to be the pump-runner; some of them run by air and steam.

Q. Where were you located—in the mine or out?

A. I was located inside when I was working.

Q. Where were you on the 29th of January last?

A. Up at the boarding house.

Q. Were you in the mine that day?

A. No, sir.

Q. How long had it been since you were in the mine?

A. The night of the 16th.

Q. What were you doing in there that night?

A. Working in the shaft. They were repairing guards in the shaft. They had been torn out and they were putting them back.

Q. How long since you had been at the bottom of the pit?

A. I believe it was the night of the 25th, the last night I was down at the bottom.

Q. What were you doing down there then?

A. We were working that night in the shaft?

Q. Did you ever have any experience in mining before you went there?

A. I had worked in mines; yes, sir.

Q. How long had you been working in mines?

A. About seven years.

Q. How old are you now?

A. Twenty-three.

Q. Do you know anything about the condition of mines when they are kept properly?

A. No, sir; I am no well experienced man.

Q. What was the condition of this mine when you were last in it?

A. I don't know the condition when I was last in; I was no farther than the bottom of the shaft.

Q. How about the last time you were through?

A. It appeared to me the part I traveled was in pretty fair condition.

Q. As good as any other mine you had worked in before?

A. Yes, it was in better condition, some parts that I was over.

Q. Did you ever notice any gas or dust or anything of that sort that is calculated to produce explosions?

A. I don't know what you call it; I have seen something there that would explode; I have seen it lit several times; they call it gas.

Q. What did you see?

A. I seen the flame from it—fire.

Q. To what extent?

A. I suppose back ten or fifteen feet from the face they set it off.

Q. How often did you see that?

A. I have seen it five or six times anyway.

Q. In what length of time?

A. In the course of the time I was there—in the last two years.

Q. You noticed the presence of gas five or six times during the two years that you have been there. How long before this explosion had it been since you noticed any?

A. It was a couple of months.

Q. Was there very much then?

A. No, sir; not very much then.

Q. What about the cage? You said you were fixing that.

A. We was fixing the guides in the shaft.

Q. What was the matter with them?

A. The cage had a wreck, I suppose, and tore them out; I wasn't down there.

Q. How far down was that?

A. That was one hundred and seventy-five feet of the bottom.

Q. Do you know how deep this shaft was?

A. I have heard them say it was five hundred and eighty-five feet.

Q. They had a wreck in the shaft of the cage, and they were fixing that the night you worked there?

A. Yes, sir.

By Delegate Strickling: Q. Did you get them fixed?

A. Yes, sir.

Q. The cage was running, then, on the 26th or 27th?

A. I don't remember now whether it run or not.

Q. Were you down to the mine on the 29th?

A. Yes, I was on the head.

Q. Was it running that day?

A. Yes, sir; it was running that day. I know it was running that morning of the 29th.

Q. Do you know whether the fan was running that day or not?

A. No, sir; I couldn't say; I never paid any attention.

By Delegate Kidd: Q. At any time when the fan was not running were the men permitted to work in the mine in mining coal?

A. No, sir; only in the shaft.

Q. Was the fan running when you repaired these guides?

A. It was at night when I was in.

Q. There were no miners at work then that night?

A. No sir.

GEORGE DEAN, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of George Dean.

Examination by Attorney General May:

- Q. Where do you live?  
A. Stuart.  
Q. What business are you engaged in there?  
A. Boss driver there.  
Q. What does the boss driver do?  
A. Looks after the drivers.  
Q. Drivers where?  
A. In the mines.  
Q. Where were you on the 29th day of January?  
A. At Thurmond.  
Q. Were you at the mines that day at all?  
A. Yes, sir; I was in the mines that morning.  
Q. What time did you come out?  
A. Between seven and eight o'clock.  
Q. What time did you go in?  
A. Seven o'clock.  
Q. Were your duties there so you could get off?  
A. No, sir; I quit; that was my last day.  
Q. Have you been back since?  
A. No, I didn't leave to stay. My mother and all is out there; I went out and back home.  
Q. Why did you leave?  
A. I was just tired working out there.  
Q. Just tired working?  
A. Yes, sir.  
Q. When did you determine to leave—that day or the day before?  
A. No, I aimed to go away that day.  
Q. What did you go down in the mine for that morning?  
A. I went down as I always went down; I went down to start the drivers, and then quit.  
Q. What caused you to lay off?  
A. Me and the bank boss had a little falling out.  
Q. Who was the bank boss?  
A. Mr. Harry Carwin.  
Q. Was the falling out anything about the mine or the condition of the mine?  
A. No, sir; nothing about the mine.  
Q. How long had you worked in that mine?  
A. Something about a year.  
Q. In there regularly, were you?  
A. Yes, sir; regularly.  
Q. Did you ever have any other experience in mines?  
A. Yes, sir.  
Q. Other than that one?  
A. Yes, sir.  
Q. Where?  
A. All over the Kanawha River and several places on Loup Creek.  
Q. What was the condition of this mine, Mr. Dean, the day that you left there?  
A. As far as I know about the mine it was in fairly good condition.  
Q. Do you know of the presence of any danger?  
A. No, not exactly.  
Q. Not exactly?  
A. No, sir.  
Q. What do you mean by that?  
A. Because I don't know all about mines.

- Q. Did you notice the presence of any danger of an explosion?
- A. No, sir.
- Q. Gasses or otherwise?
- A. No, sir; I didn't.
- Q. It wasn't on account of that that you quit and left?
- A. No, sir.
- Q. Did you go through the mine in the course of your work?
- A. Yes, sir.
- Q. How often did you go through?
- Q. I generally traveled around; I never went to the head of the entries for anything; but about three or four times a day.
- Q. During that time did you notice any accumulation of gasses or other explosives?
- A. Yes, sir, up in the head of these entries I have.
- Q. In dangerous quantities?
- A. I couldn't say whether it would be dangerous or not; I don't know how much it would take to be dangerous.
- Q. There hadn't been any explosion, of course, before that?
- A. No, sir.
- Q. You simply quit that morning and left because you had some personal difference with the mine boss?
- A. Yes, sir.
- Q. And not through any fear you had of an explosion in the mine?
- A. No, sir.
- Q. Did you know of any warning or anything of that sort that an explosion might occur there?
- A. No, sir, I did not.
- Q. You never had heard of anything of that sort?
- A. No, sir.
- By Senator Kidd: Q. Had you heard any of the miners in there discussing any probability of an explosion?
- A. No, sir; I don't believe I have.
- Q. You say you mined coal?
- A. No, sir; I worked day work.
- Q. What kind of a lamp did you use?
- A. I used an ordinary open lamp.
- Q. What were your duties as a day laborer?
- A. Boss driver; I looked after the drivers.
- Q. They all used open lights, did they?
- A. Yes, sir.
- Q. You hadn't heard any talk of seeming danger there by which the men were alarmed?
- A. No, sir; I did not.
- Q. You say you were down on the morning the explosion occurred?
- A. Yes, sir.
- Q. Did you have trouble with your mine boss that morning?
- A. Yes, sir; that was the morning I had the trouble.
- Q. And you proceeded to quit at once?
- A. Yes, sir.
- Q. You are not now sorry that you had that trouble?
- A. No, sir: **I ain't sorry of it now.**
- By Mr. Dillon: Q. Was the air good in the mine generally?
- A. Yes, sir.
- Q. You always found the air good, did you?
- A. Yes, sir.
- Q. Strong current?
- A. Tolerably strong, yes, sir; I might say it was real strong; there were trap doors in there that little boys could hardly shove them open, the air was so strong against them.
- By Delegate Strickling: Q. Do men tend those trap doors, or boys?
- A. Boys.
- Q. About what age?

A. Eleven, twelve and up; I believe there is one or two in there about eleven or twelve years old.

Q. About how many boys are employed doing that work?

A. Five.

Q. How many doors are there?

A. About seven doors.

Q. Did your duties take you to the ends of the openings where the mining was being done?

A. No, sir; not altogether.

Q. In speaking of the condition of the air you speak of the air over the territory which you traveled?

A. Yes, sir.

GEORGE PETERSON, a witness of lawful age, being first duly sworn,  
testified as follows:

### Testimony of George Peterson.

Examination by Attorney General May:

Q. Where do you live?

A. I live at Stuart.

Q. How long have you lived there?

A. Something like twelve months.

Q. Where did you live prior to that time?

A. I lived at Fayette station.

Q. What do you do at Stuart?

A. I dig coal—I am a coal miner.

Q. How long have you been digging coal?

A. Well, I have been in coal mines for the last fifteen years.

Q. What is your age now?

A. Thirty-four.

Q. How long have you mined coal at Stuart?

A. Well, pretty close to three years.

Q. When did you do your last mining of coal at Stuart mine?

A. Last Tuesday: a week ago yesterday.

Q. What day of the month?

A. I couldn't say what day of the month.

By Senator Kidd: Q. Was it the day of the explosion?

A. It was the day of the explosion.

By Attorney General May: Q. Were you in there on the day of the explosion?

A. Yes, sir.

Q. What time did you come out?

A. I came out about a quarter past one.

Q. What time did the explosion take place?

A. Between twenty-five minutes after one and twenty minutes to two—sometime between that.

Q. You had only been out a few minutes?

A. Only a few minutes.

Q. What time do you ordinarily go into the mine?

A. Seven o'clock in the morning.

Q. When did you usually come out?

A. I always come out about 4—anywhere from 3 to 4 o'clock.

Q. How did you happen to come out earlier this day?

A. They had a wreck in the shaft, and I had come to see why I wasn't to get cars, and I had helped to put the guide in that they tore out in the bottom, and I got all wet, and I concluded that I would go home: I was cold, and they wasn't hoisting, and I concluded I would go home.

Q. I guess you are very glad of it now, aren't you?

A. Yes, sir.

Q. Was there any other reason for your coming out that day?

A. No, sir.



Q. Did you notice the presence of any danger? Was there any alarm among the men?

A. No, sir; not as I heard.

Q. You never heard anything of that sort?

A. No, sir; I didn't.

Q. Who came up with you?

A. I couldn't say; there was about nine of us.

By Senator Kidd: Q. Was that the last cage that came up?

A. Now, I couldn't say positively that it was; but I hadn't got home.

By Attorney General May: Q. How far do you live from the shaft?

A. I live something like two hundred yards; not over that.

Q. You hadn't got home?

A. I hadn't got home; no, sir.

Q. You had gone directly?

A. After I came up on the cage I went up on the tippie—went down to see where they kept our cars and looked to see how many cars had dumped, and I turned around and walked back down the staircase and started home.

Q. Did you find anything out of the ordinary in the mine that day, or within a few days preceding that, tending to alarm you as to an explosion or the possibility of it?

A. No, sir; I did not.

By Delegate Strickling: Q. At the time you came up were there any other men who wanted to come up?

A. Well, there was a good many there at the bottom; some of them wanted up, and some of them didn't, I suppose. It was like miners will; if they don't get cars in the morning they want out if they are not going to work. This little wreck they had in the morning had stopped them from raising men or coal either.

Q. Was anybody pushed off the cage?

A. Not to my knowing; I wasn't.

Q. In what entry or opening did you work?

A. I worked in the first left off of the main east head.

Q. Did you ever have any difficulty in getting fresh air at the point you worked?

A. No, sir.

Q. Did you detect the presence of gas?

A. No, sir.

Q. The current was always good?

A. At my place.

Q. Do you remember who worked with you in the same entry?

A. I worked by myself; no one worked with me; I did my entry work myself.

By Senator Kidd: Q. Had this cage gotten out of fix a few days before that, and had you to stay in there pretty nearly all night?

A. Yes, sir.

Q. Were you in the crowd that was left that time?

A. Yes, sir.

Q. You didn't care about taking another chance?

A. No, I didn't.

Q. That had something to do with some men wanting to come out when they heard of it?

A. I couldn't say; I am only speaking for me; no one said nothing to me.

Q. Was there any talking as you came up about why you were coming up?

A. No, sir.

Q. It don't take long to come up, does it?

A. No.

Q. You shoot up pretty fast?

A. Pretty quick. We run men slower than they do cars, of course.

Q. The fan was running that day?

A. It was when I came up.

Q. And had been running all morning, had it?

A. I couldn't say about that.

Q. The air seemed all right.

A. I never seen any change in the current of air whatever.

Q. Did you mine by the day or by the ton?

A. I mined by the ton—by the car.

Q. How much did one of those cars that you loaded there, hold?

A. I couldn't say.

Q. I mean their weight?

A. I couldn't say what they weighed.

By Mr. Dillon: Q. Do you remember how many men came up with you on that trip?

A. I believe there was nine of us.

By Delegate Strickling: Q. Did you ever hear any complaint amongst the men about the dangerous condition of that mine?

A. No, I don't think I have.

Q. You never heard any one complain that he was afraid of it or anything of that kind?

A. No, sir.

LESTER BULLOCK, a witness of lawful age, having been first duly sworn, testified as follows:

### Testimony of Lester Bullock.

Examination by Attorney General May:

Q. Where is your home?

A. In Virginia.

Q. How old are you?

A. Twenty-two.

Q. How long have you been living up in Fayette county?

A. I reckon—as near as I can remember—about three years.

Q. Whereabouts up there are you living?

A. I staid at McDonald's and then went to Stuart.

Q. How long have you been at Stuart?

A. I have been at Stuart about two years.

Q. Where were you on the day of the explosion?

A. I was working.

Q. Where?

A. In the bank.

Q. How long did you work in there?

A. I worked until twelve.

Q. What were you doing?

A. Cutting coal with a machine.

Q. What made you come out at twelve?

A. The contractor knocked the men off—didn't have anything for them to do.

Q. How long had you been out when the explosion took place?

A. About ten minutes.

Q. Have you been back in there since?

A. No, sir; not yet.

Q. Who came out with you?

A. Oliver Tier and Jack Walker.

Q. Are they colored men?

A. Yes, sir; and Maxwell Tucson and Charles Matthews.

Q. What made you come out?

A. The contractor knocked his men off—didn't have anything for them to do.

Q. Was any alarm given out down there among the men that there was any danger or anything?

A. No, sir; not to my knowledge.

Q. You never heard of anything of that sort?

A. No, sir.

By Senator Kidd: Q. In these different headings different men had contracts and worked so many men?

A. Yes, sir.

Q. How many were working for your contractor?

A. Five men besides my self.

- Q. And you all came out?  
A. All but two and the boss.  
Q. The boss and two of them staid?  
A. Yes, sir.  
Q. What were they going to do?  
A. They were down there talking.  
Q. Down at the mouth of the shaft?  
A. Yes, sir.  
Q. When you got on the cage?  
A. Yes, sir.  
Q. Were they expecting to come up?  
A. I guess so.  
Q. They were among the killed, were they?  
A. Yes, sir.  
Q. They never got out?  
A. No, sir.  
Q. And you didn't come out that day—you and the other boys you named—because you expected any danger?  
A. No, sir.  
Q. No disturbances that indicated anything?  
A. No, sir; we was turned off—didn't have nothing to do.  
Q. How long had you been working in that mine?  
A. About two years.  
Q. As a cutter all that time, were you working?  
A. Yes, sir.  
Q. How did you cut?—what did you use?—a machine?  
A. Yes, sir.  
Q. You cut under so they could blast, did you?  
A. Yes, sir.  
Q. Did any of them undertake to blast there without cutting under?  
A. No, sir.  
Q. That was not permitted?  
A. No, sir.  
Q. How much powder would you take in there at a time—take into the mine?  
A. A couple of jacks.  
Q. What do you mean by "jacks"?  
A. Little powder flasks.  
By Delegate Mitchell: Q. Did you come up on the same cage that Peterson came up on?  
A. Yes, sir.  
Q. At the time that he came up?  
A. Yes, sir.  
Q. Everybody got on there that wanted to?  
A. Yes, sir.  
Q. No one was taken off?  
A. No, sir.  
By Delegate Strickling: Q. Was the fan running that day?  
A. Yes, sir.
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EDWARD PERKINS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Edward Perkins.

Examination by Attorney General May:

- Q. Where is your home?  
A. I was born and raised in Fayette county.  
Q. Where do you live now?  
A. The last place I lived was Stuart.  
Q. How long since you lived there?

A. I went there last October two years ago. I was away a little while during that time, but that is my home ever since that.

Q. Is that still your home.

A. No, sir; they discharged me.

Q. Before or since the explosion?

A. Since then.

Q. Where were you on the day of the explosion?

A. I was coming through Oak Hill; twist Oak Hill and Stuart; I worked at night.

Q. Did you work night shift there?

A. Yes, sir.

Q. What were you doing in the mine?

A. Anything there; I was supposed to be the water-boy; I did anything they wanted done.

Q. Any kind of work they wanted you to do?

A. Yes, sir; I could do anything they wanted done.

Q. How long before the explosion?

A. I came out that morning about five or ten minutes before 5 o'clock.

Q. When had you gone in?

A. I always went in at 7 o'clock.

Q. In the evening?

A. Yes, sir.

Q. Did you come out simply because that day's work was over?

A. Yes, sir.

Q. How many came out with you?

A. Nobody; except there was two men in, but they came out I think about 10 o'clock, the best I remember; except that, there was nobody in the mine but me.

Q. You stayed in by yourself?

A. Yes, sir.

Q. What were you doing in there?

A. I ran the pumps.

Q. The night before?

A. The night before the explosion; yes, sir.

Q. You didn't have any fears?

A. I wasn't afraid.

Q. You had no apprehension of any explosion?

A. No, sir; I wasn't afraid of no explosion.

Q. You saw no evidence of any danger that was likely to result?

A. No; not a bit where I was.

By Delegate Strickling: Q. At what point were you located that night?

A. That night I didn't go all over the mines, but as a usual thing I went any place in the mines that I wanted to go—anywhere there was any work to be done.

Q. On this particular night, how far were you away from the shaft?

A. Indeed I couldn't say how many hundred feet I was away from the shaft. There was some small pumps; I went and started them all and packed one pump and started it up; I couldn't be safe in saying how far it was from the shaft.

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JAMES O. BOYLE, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of James O. Boyle.

Examination by Attorney General May:

Q. Where do you live?

A. Stuart.

Q. How long have you lived at Stuart?

A. I have been living there, between Stuart and Parral; I have been there about twenty-five months.

Q. Where had you lived before that?

A. Red Ash.

Q. How long have you been engaged in coal mining?

- A. About thirty-three years.
- Q. Where?
- A. In different parts of the United States.
- Q. In what different states have you worked?
- A. Pennsylvania, Ohio, Kentucky and West Virginia.
- Q. How long have you been working in the Stuart mine?
- A. I have worked in Stuart about fifteen months altogether.
- Q. What did you do in there?
- A. I have done very near everything a man can do in a coal mine, at Stuart, excepting driving a mule or something like that.
- Q. What was your principal work?
- A. When Mr. Linley, the mine foreman, was there, I was fire boss under him; I also kept up the machinery—that is, the coal cutting machines and pumps.
- Q. When did you cease acting as fire boss?
- A. About three months ago.
- Q. Since that time what have you been doing?
- A. I have been on as mine foreman.
- Q. As fire boss what were your duties, Mr. Boyle?
- A. My duties were to go in and examine each and every place.
- Q. When?
- A. In the morning, before any men were allowed to enter the mine.
- Q. Did you always do that?
- A. Yes, sir.
- Q. What did you do when you were in there?
- A. I always started—I took one side of the shaft first; I had helpers; I gave my helper the other side, and I took my entries and face, and I took each and every room.
- Q. What did you do when you got to the room?
- A. I examined it for gas and for bad top.
- Q. What test would you make?
- A. I tested the place with my Davy lamp.
- Q. What sort of a lamp is that—an open lamp?
- A. No, no; it is a safety lamp; but that is the name of it; it is the Davy lamp. Of course I carried two lamps; I carried one with a glass in for traveling, (I could see better by it), and this Davy lamp I used it altogether for testing.
- Q. Would you go into a room with it?
- A. I carried the two into the room.
- Q. If you found gas, what would you do?
- A. I put a danger board at the mouth of it—"Danger; keep out."
- Q. If it was all right?
- A. If it was all right I merely marked the day of the month.
- Q. What was that to indicate—that it had been examined?
- A. That I had been there to examine it.
- Q. Did you do that each morning while you worked there as fire boss?
- A. Yes, sir.
- Q. And each and every room there—yourself or your helper?
- A. Yes, each and every room.
- Q. Did you always make a thorough test to ascertain whether or not there was presence of any danger?
- A. Yes, sir.
- Q. During that time did you ever find any gas?
- A. Oh, yes; I found a little now and then, but nothing to indicate any danger.
- Q. Did you ever mark any of those rooms as dangerous during the time that you were fire boss?
- A. Wherever I found it, I always marked it until I got to it, and got brattice and proceeded to take it out.
- Q. If you found gas you immediately proceeded to take it out?
- A. Oftentimes I would have time to get some brattice before I made my report outside. Of course I never found any body of gas that was dangerous that I couldn't let the men go in and then go ahead and take care of the place afterwards.

Q. That was during the whole time you were fire boss?

A. Yes, sir.

Q. You never at any time found enough gas in one room that would prevent a man from going in there to work?

A. I wouldn't allow a man to go in if I could find anything at all.

Q. When you found the presence of gas you marked it and let nobody in until it was ventilated?

A. Yes, sir.

Q. Did you make the test as to the presence of dust?

A. As to dust I always made it a practice to make the water bailers sprinkle the water at nights along through the mine. Many a morning I went in and caught him and took him on different roads with me, with his water buckets full of water; I have always made that a practice any place I have ever been.

Q. Was it a part of your duty to ascertain whether there was any danger from the presence of dust?

A. Yes, sir.

Q. You did that promptly?

A. Yes, sir.

Q. Who succeeded you as fire boss?

A. James Westleyhohn and John Cowan.

Q. Where did they live?

A. Westleyhohn is here; Cowan is dead.

Q. Was he killed in that explosion?

A. Yes, sir.

Q. What position do you hold now?

A. I am not holding any at the present time.

Q. What were you doing at the time of the explosion?

A. I was mine foreman.

Q. Is that higher?

A. A fire boss has no superior in or around a coal mine.

Q. He is a gentleman to himself?

A. No, sir; but he has no superior.

Q. Who do you work under?

A. Of course I am supposed to work in harmony with the mine foreman if I am fire boss. The mine foreman and the fire boss must work together for the safety of the mine.

Q. Did you succeed Mr. Linley as mine foreman?

A. After him; yes, sir.

Q. You took his place?

A. Yes, sir.

Q. And continued in that position up until the explosion?

A. Yes, sir; I was off sick at the time this thing occurred.

Q. How long had you been off?

A. I came out of the mine Saturday, before it happened at ten minutes to 7 o'clock.

Q. This was on what day?

A. The explosion was on Tuesday. We had some trouble in the shaft a week before this thing occurred, and I had been down in the mine night and day, working, and I spent too many hours in there and I took sick from the effect; I was on my feet too much; that was just it.

Q. To whom does the fire boss report?

A. He makes his report on the blackboard at the head of the shaft where everybody can see it.

Q. You saw those reports each morning, did you?

A. I got the fire boss's report sheet generally in the evening. Of course the blackboard was there; when I came there the blackboard was there filled out—that is if he was out of the mine. Of course, when he was in the mine he marked it "Fire boss inside," and signed his name; then when he came out, if the mine was O. K., he would go to work and mark the board O. K.—"Mine O. K."

Q. In any reports he made to you while you were mine foreman did he report any dangerous condition in the mine?

- A. No, sir.
- Q. Had you heard any complaints on the part of any men during that time?
- A. No, sir.
- Q. That there was gas or other dangerous substances in there?
- A. No, sir.
- Q. No complaints from that source at all?
- A. No complaint from that source whatever.
- By Delegate Strickling: Q. Who has immediate charge of the boys that managed these air-gates?
- A. The mine foreman is supposed to.
- Q. Who directs these boys when to open and close them?
- A. Of course whenever they see a driver coming to go through the door they are supposed to open the door, and after he passes through with his car or trip of cars, they are supposed to shut it.
- By Attorney General May: Q. They have that as a general direction, do they?
- A. That is a general direction.
- By Delegate Strickling: Q. Then they must do that themselves—they understand that?
- A. Yes, sir; that is what they are hired for; they understand it.
- Q. You were foreman just before this explosion?
- A. Yes, sir.
- Q. Do you know how many boys were working at this time?
- A. Six.
- Q. Do you remember the ages of those boys that had charge of these gates?
- A. No, I don't think I could tell you the ages of all of them.
- Q. About what ages?
- A. As near as I can judge they were anywhere from fourteen to sixteen years old, I think.
- Q. Do you know the names of the boys?
- A. Yes, sir.
- Q. What are they?
- A. There is Ralph Love, Dallas Love, Andy Kohac, John Kohac, Charley Kohac and Frank Lovings. At one time I had another boy; I had my own boy in there running pumps at one time.
- Q. How old is he?
- A. He is going on fifteen years old; I just took him in there for awhile because he wasn't attending to his school right; so I just took him in to make him tend school. Of course when it was agreeable for him to attend school I put him back to it.
- Q. Were those gates difficult to handle?
- A. No, sir.
- Q. What effect would it have on the ventilation if those gates were open?
- A. It would cut the ventilation off from these places by leaving them gates open.
- Q. How often were you about these gates?
- A. I couldn't tell you how many times I had been around through the day.
- Q. About how much would you average, would you say?
- A. I might have been through each and every door in the mine as many as a dozen times a day; I couldn't say; that is a question I couldn't answer.
- Q. You were not on duty the day of the explosion?
- A. I hadn't been on duty since the Saturday night before; I came out of the mines at ten minutes before 7 o'clock Saturday morning.
- By Attorney General May: Q. You say you have worked in Ohio, Pennsylvania and Kentucky?
- A. Yes, sir.
- Q. What was the condition of those mines as compared with the mines in this region here that you have worked in?
- A. In Ohio and Kentucky I never worked in any where there was any gas. In Pennsylvania I have. I worked where they worked with an open light, in anthracite regions, and I have worked where we worked with a safety lamp, in the bituminous regions, and the machine mines in the bituminous mines in Pennsylvania seemed to be just about the same as these.

Q. How are precautions there to prevent accidents of this sort as compared to precautions here?

A. Just about the same.

Q. In both states do you think they used all the precautions they could to prevent those things?

A. Yes, sir; I think they did. I did work at one place in the anthracite regions in Pennsylvania where they had to lay a pipe line from the foot of the shaft, with a bog pump.

Q. For what?

A. To put the fires out whenever we would shoot; we had the water right up against us all the time. Of course that kept that mine pretty wet. We never knew what it was to come out of there dry.

Q. You think this has as good precautions here as any mine you have been in, to prevent accidents?

A. I think they have; yes, sir.

By Senator Kidd: Q. Did you inquire about the ages of these boys?

A. No, sir; I didn't personally; the boys were working before I took charge of the mines.

Q. Didn't their appearance indicate that they were only ten or eleven years old?

A. I don't know as it did. I took it for granted that the boys' parents had gave their permission for them to work, and they were working when I took hold of the mine.

Q. What do you mean by taking it for granted?

A. Just by their appearance; just looking at them.

Q. The law requires a certain age?

A. Yes, sir; fourteen years old.

Q. You took it for granted they were that old?

A. Yes, sir.

Q. And never asked?

A. No, sir; they were working there when I took charge, and I just let it go that way.

Q. They were all killed, these boys you named?

A. Yes, sir.

By Attorney General May: Q. What do you say this man's name is, who is here?

A. James Westleyhohn.

JAMES WESTLEYHOHN, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of James Westleyhohn.

Examination by Attorney General May:

Q. What is your name?

A. James Westleyhohn.

Q. Where do you live?

A. I live at Stuart.

Q. How long have you been living there?

A. Three months.

Q. Where did you live before you went there.

A. At Whipple.

Q. Where is that?

A. About three miles below.

Q. What were you doing at Stuart?

A. I was fire boss.

Q. How long have you been fire boss there?

A. I was fire boss about the last two days.

Q. Had you been fire boss all the time you had been at Stuart?

A. No.



- Q. How long had you been fire boss prior to this explosion?
- A. I was fire boss there about six weeks.
- Q. Before the explosion?
- A. I had been there three months and I was slate boss about three weeks.
- Q. Then you got to be fire boss.
- A. Yes, sir.
- Q. As fire boss what were your duties at that mine?
- A. To go down in the mine and see everything was O. K.
- Q. When would you do that?
- A. I would start about half past 2 o'clock in the morning, or 3 o'clock, and come out about fifteen minutes of 7.
- Q. When you were in there, what would you do?
- A. I went to see each and every place.
- Q. Did you visit each and every place in the mine?
- A. Yes, sir.
- Q. What did you do when you found it safe?
- A. I O. K.'d it.
- Q. When you found it unsafe, what did you do?
- A. I would put it on danger.
- Q. Did you ever find it unsafe?
- A. Yes, sir; I found places that were unsafe, but I put them on danger.
- Q. You marked them when you found them unsafe?
- A. Yes, sir.
- Q. To whom did you make your report?
- A. To the time boss.
- Q. Was any body permitted to go in those rooms to work when you marked one of them unsafe?
- A. No, sir.
- Q. Was it a frequent thing to find a room unsafe?
- A. No, sir.
- Q. You seldom found them, then?
- A. Yes, sir; seldom.
- Q. What would you do to render them safe when you found them unsafe?
- A. If I found them unsafe I just marked them on danger.
- Q. Did you leave them there then unattended?
- A. No, sir; I would just go right at what it was.
- Q. You proceeded at once to remove the danger, and would you leave the mine in a dangerous condition?
- A. No, sir.
- Q. You would at once go and remove the danger—take it out?
- A. Yes, sir.
- Q. What would be the danger—gas?
- A. Sometimes I found a body of gas, and I would go right back and remove it by brattice before the men went into it.
- Q. That was your directions—to always do that?
- A. Yes, sir.
- Q. And you always did?
- A. Yes, sir.
- Q. When did you last examine that mine?
- A. On the 29th.
- Q. To what extent did you examine that mine that morning? Did you go all over it?
- A. Yes, sir; every place.
- Q. Was anybody with you?
- A. No, sir.
- Q. Did you visit all those rooms yourself?
- A. Yes, sir.
- Q. What was their condition that morning?
- A. The mine was all right.
- Q. Did you find any gas that morning in any of the rooms?
- A. Yes, sir; in No. 9 room on Bradley's entry there was just a little bit.

Q. Did you mark that room dangerous that morning?

A. Yes, sir; that has been marked up for a long time; it ain't working.

Q. You hadn't done anything to remove that danger?

A. No, sir; I never moved it.

Q. What was the cause of the danger there?

A. Because that room was ahead of this other room below. I stopped this room because it was ahead; there was no rooms below, and no rooms ahead, and I stopped it. There was no danger there whatever.

Q. When did you go in there that morning?

A. About half past 10 Saturday morning.

Q. That day?

A. Saturday morning; yes, sir; the same day.

Q. That was the day the explosion took place?

A. Yes, sir; I went in the morning, and I went in besides.

Q. That is the only place in the mine you found the presence of gas?

A. Yes, sir.

Q. You say that had been marked dangerous for sometime?

A. Yes, there was nothing to amount to anything, only it was marked out because this room was farther in than this room below or this room above. There was no dangerous gas.

Q. The gas, then, was not the cause of the room being marked dangerous?

A. No, sir. That room was farther in than the other room above or below; they couldn't drive no breakthrough to it.

Q. That is the only room marked dangerous or left marked dangerous?

A. Yes, sir.

By Delegate Duty: Q. Did I understand that it had been marked dangerous for sometime?

A. Yes, sir; that room had been stopped for a long time—that same room.

Q. Do you know whether it was stopped on account of being dangerous or because it was driven ahead?

A. It was driven ahead; because there was no rooms above and there was no rooms below.

Q. Why did you mark it dangerous?

A. To keep anybody out.

By Senator Kidd: Q. If the coal had been mined up there, and all this had not been touched on each side, would you put an entry there so that the air could pass through?

A. Yes, sir; we would.

By Delegate Duty: Q. Then, although it was marked "dangerous," it was not in fact dangerous?

A. No, sir; it was not dangerous; but it was marked "dangerous."

By Chairman Gartlan: Q. You simply marked it "dangerous" to keep them from working there?

A. Yes, sir.

By Mr. Dillon: Q. You regarded a room that had no breakthrough as not a safe place to work?

A. This room was drove ahead, and we stopped it.

Q. You stopped it wherever it got ahead?

A. Yes, sir.

Q. You marked it "dangerous" to keep people out of it?

A. We marked it "dangerous" to keep people out of it; yes, sir.

By Delegate Strickling: Q. Did you find the presence of gas in any of the places where the men were working?

A. No, sir.

Q. Are those fans kept running all night?

A. Yes, sir; that big fan was going at eighty-five when I went in that morning, and it was going at ninety when I came out.

Q. Are the fans kept running when the men are not working in the mine?

A. Yes, sir; the fan is going regularly.

Q. Day and night?

A. The fan is going day and night.

ALBERT TEARY, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Albert Teary.

Examination by Attorney General May:

Q. Where do you live?

A. At Stuart.

Q. How long have you been living there?

A. About two years.

Q. What have you been doing there?

A. Loading coal.

Q. Where?

A. On Chillicothe.

Q. Where is that?

A. The first right off the Parral side. It is so cold up in there they named it "Chillicothe."

Q. What made it cold?

A. The air is so good—so much air came up there.

Q. What put the air up there?

A. I suppose the fan.

Q. It kept chilly for you?

A. Yes, sir.

Q. And you named it Chillicothe?

Q. Yes, sir.

Q. What did you do?

A. I loaded coal for Mr. Will Marks—worked for a contractor.

Q. Where were you on the day of the explosion?

A. I came out.

Q. Had you been in that morning?

A. Yes, sir.

Q. How long had you been out when the explosion occurred?

A. I didn't have no watch; I guess about ten minutes.

Q. How far were you from the place?

A. I got to my shanty.

Q. Did you hear the explosion?

A. Yes, sir.

Q. Did you know what it was?

A. No, sir; I thought it was a boiler busted; I didn't have no idea it was an explosion.

Q. You didn't go back down?

A. No, sir.

Q. What brought you out that morning?

A. Mr. Morris came up and told four of us working up there—he brought all his men out. It had been about a week; two guides broke out and we staid all night, and we didn't want to stay.

Q. Did you all come out?

A. Two of his men, myself and Jack Walker, came out, but the other two men were caught down in there.

Q. You didn't have any warning that there was danger of an explosion, or anything of that sort, that caused you to come out?

A. No, sir.

Q. Did you hear anything of that kind talked?

A. No, sir.

Q. Didn't hear anything that morning or previous?

A. No, sir.

Q. The cage had been wrecked and kept you in there?

A. About six days before, and kept us down there all night.

By Delegate Mitchell: Q. Have you been back there since?

A. No, sir.

By Chairman Gartlan: Q. Was Chillicothe as cold as usual that morning?

A. Yes, sir; I worked in my shirt, coat and everything that morning.

EDWARD BAYS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Edward Bays.

Examination by Attorney General May:

Q. Where do you live?

A. At Cranberry, Raleigh county.

Q. How long have you lived there?

A. About three months.

Q. Have you lived at Stuart?

A. Yes, sir.

Q. How long did you live there?

A. Three years.

Q. How long since you lived there?

A. It has been three months.

Q. How long since you worked there?

A. About three months.

Q. You have not worked there since you moved away?

A. No, sir.

Q. What did you do there?

A. I loaded coal and worked on the outside and on the inside, too.

Q. Loaded coal on the inside?

A. Yes, sir.

Q. What do you mean by loading coal—shoveling it from where it was blown down into the car?

A. Yes, sir; into the car.

Q. In doing that class of work did you have occasion to go around over the mine any?

A. I went from the bottom up to the face. I worked on the first right and first left, and in Farral side; I worked at three places at different times.

Q. It had been about three months since you worked there when the explosion took place?

A. Yes, sir.

Q. What made you quit working there? Did you quit of your own motion?

A. No, sir.

Q. Was it through any fear of danger of explosion or anything of that kind?

A. I don't know as to the explosion, but I was a little afraid of the gas.

Q. Why were you afraid of the gas?

A. I had set it off a time or two.

Q. To what extent had you set it off?

A. I set it off directly after firing a shot; in going back to load I set it off.

Q. Would it produce any explosion, or anything of that sort?

A. No, sir.

Q. Was it a small or large accumulation of gas?

A. It wasn't so awfully large.

Q. Did anybody else quit on account of it?

A. No, sir; not as I know of.

Q. Did you have any talk around among the men about its presence in the mine?

A. No, sir; I don't think so.

Q. You had a very extensive experience as a miner?

A. No, sir; that was the first mine I ever worked in to amount to anything.

Q. How long did you work in there? I believe you said about three months.

A. No; I said it was three months since I worked in there. I wouldn't say just how long I did work in there, for I was in there at different times. Once I worked in there about a month, then I came out and worked on the outside awhile, and then went back and worked again; I don't remember just how long.

Q. Did you only work two times—once about a month—and come out and went back?

A. Then I went back again.

Q. Three times you worked in there?

A. Yes, sir.

Q. You saw some gas, and on that account you left and went over to Cranberry?

A. Yes, sir.

Q. You say you heard no complaints among the other men?

A. I have heard them talk about the gas, and the like of that, but I never heard them going to quit on account of it.

Q. You never heard of them quitting or threatening to quit?

A. Yes, sir; I heard them talk of threatening to quit.

Q. You don't know whether anybody else quit or not?

A. No, sir.

Q. Have you any knowledge of the existence of gas in coal mines, or what amount it takes to make it dangerous?

A. No, sir.

Q. You just saw some that took fire and you concluded you would get out?

A. Yes, sir.

Q. Was that a frequent thing for you to see it that way, or just an occasional occurrence?

A. Just occasionally.

Q. How often did you see it?

A. The first month I worked in there I seen it three times, I believe.

Q. The next month how often did you see it burn?

A. The next month one time.

Q. And the next month how many?

A. I didn't see any the next month.

Q. The first month three times and the second month once, and the last time none?

A. Yes, sir; I worked at different places.

By Senator Kidd: Q. Who was the mine superintendent when you worked there the last time?

A. Fred Dixon.

Q. Did you assign any reason to him for quitting when you did quit?

A. No, sir.

Q. To any one?

A. No, sir.

Q. Just simply quit?

A. Yes, sir.

Q. How long was that before the explosion?

A. About three months.

Q. Did you communicate your fears to any of the other miners in there—tell them you were going to quit and give them your reasons?

A. No, sir; I told them I was going to quit but I didn't give any reason.

Q. Did any of the others say they were going to quit on account of its being dangerous?

A. Oh, I heard them talk about its being dangerous but I never heard them come right out and say.

Q. Did they say it was dangerous on account of gas?

A. Yes, sir; I have heard them talk about its being dangerous, and about the gas being dangerous.

Q. Who did you hear talk about it? Any one that is out of the mine, that didn't get killed?

A. Yes, sir.

Q. Who?

A. Fred Golden.

Q. Is he here now?

A. Yes, sir.

Q. Who else did you hear?

A. Well, I have heard Mike Lilly, for one.

Q. Do you know where he is now?

A. Yes, sir.

Q. Where?

A. Well, I don't know where he is now; I know where he was Saturday; he was at Cranberry, Raleigh county.

Q. Did he quit when you did?

A. No, sir.

Q. Soon after?

A. I don't remember.

Q. Did you hear any one else say so besides those two?

A. Not as I remember of.

By Attorney General May: Q. I will ask you again, Mr. Bays, where in the mine you worked?

A. First I worked in Parral heading—on the Parral side.

Q. That is the first work?

A. Yes, sir.

Q. Now, where next?

A. It was on the first right.

Q. Next?

A. First left.

Q. Now, on the Parral heading, you noticed the presence of gas three times?

A. Yes, sir.

Q. On the first right you noticed the presence of gas once?

A. Yes, sir.

Q. And on the first left you didn't notice any gas at all.

A. No, sir.

Q. Who was the fire boss when you worked there?

A. Andy Mitchell and Jim O'Boyle; I believe it was Jim.

Q. Did you ever tell either one of them about the existence of gas?

A. No, sir.

Q. You made no complaint to your employers?

A. No, sir.

Q. Did you ever know of any man making complaint to the superintendent or fire boss or mine foreman about the existence of gas in there?

A. No, sir.

Q. You said nothing about that to any of those parties whose duty it was to remove the gas did you?

A. We asked Mr. Boyle to come up and put up some brattice, I believe.

Q. Did he put it up?

A. Yes, sir; I think he put it up that evening.

By Chairman Gartlan: Q. Did I understand you to say that you noticed the gas each time after putting a shot off?

A. Yes, sir.

Q. Not any other time—just after putting a shot off?

A. Yes, sir; I remember seeing it once without putting a shot off

Q. Very much?

A. Well, I don't know how much it was, because as soon as it set off I run the other way; I didn't wait to see how much there was of it.

By Delegate Mitchell: Q. Did you get burned by either of these explosions of gas that you saw?

A. No, sir.

Q. Did your clothing get burned any?

A. No, sir.

By Attorney General May: Q. How did it get set off?

A. The first time I seen gas burn there, the driver set it off down at the tool box—where we had our tool box.

Q. How did he set it off?

A. He set it off with his lamp.

Q. Did it burn him or do him any damage?

A. No, sir; he just dropped down behind the car.

Q. How about the next time?

A. The second time it was set off by a shot—a shot of coal.

Q. Did it do any damage in any way?

- A. It set the coal on fire.  
Q. What sort of a shot was that?  
A. Powder shot.  
Q. Who put that shot off?  
A. Mike Lilly and Charley Akers.  
Q. Where is Charley Akers.  
A. He is here.  
Q. The other times, how did it get caught?  
A. Well, I set it off once myself.  
Q. How?  
A. I was up like at the face and I aimed to reach up that way [indicating] to get a lump of coal, and I got my head up where the coal shot down and set fire to it.  
Q. To what extent did it burn, then?  
A. I don't exactly know, because I jerked my hat off and threwed it down.  
Q. When you got the fire away from it, it quit burning?  
A. No, sir; it quit immediately after that; I couldn't say how long it was.  
Q. Was there enough of it to produce any report or explosion?  
A. No, sir.  
By Mr. Dillen: Q. That gas was usually right where the coal had been shot down?  
A. Yes; all except one time.  
Q. And when it got afire of course it burned up all that way?  
A. Yes; it seemed to me it did.  
Q. If there was any more there it would not stop burning after it once caught, would it?  
A. I don't know; I never tried it.  
Q. How long did it burn after it caught?  
A. I wouldn't say how long.  
Q. You saw it quit, didn't you?  
A. No, sir.  
Q. You didn't see it quit?  
A. No, I seen it after it quit.  
Q. You saw the flame until it stopped burning?  
A. No, sir.  
Q. Why didn't you?  
A. I had my back to it.  
Q. You just turned around?  
A. Yes, sir.  
Q. How long was it burning?  
A. Half a minute; not that long either; I wouldn't say how long.  
Q. It made a light?  
A. Yes, sir.  
Q. How close were you to it?  
A. The first time I was within six or eight feet of it.  
Q. It didn't burn out to where you were?  
A. Yes, sir; I think it did; it burned out to where I was first at when it started to burn.  
Q. How far was that from the face of the coal?  
A. I don't know.  
Q. It made no report.  
A. No, sir.  
Q. It just flashed up and went down?  
A. It flashed up and went to the face and came back.  
Q. And then went out?  
A. Yes, sir.
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CHARLES AKERS, a witness of lawful age, being first duly sworn,  
testified as follows:

## Testimony of Charles Akers.

Examination by Attorney General May:

Q. What is your name?

A. Charles Akers.

Q. Where do you live?

A. At Stuart.

Q. How long have you lived there?

A. I have lived there about five years.

Q. What did you do there?

A. I have been caging at the foot of the shaft for about the last three months.

Q. Did you ever mine any coal?

A. Yes, sir; I contracted there for about eight months.

Q. What part of the mine did you work in?

A. When I contracted I was on the second left off Parral; that is off the west entry.

Q. How long did you work in that second left?

A. I guess I was in there something like seven or eight months.

Q. Had you any experience in mining before you went there?

A. No, sir; nothing to amount to anything.

Q. During the time you worked there did you find any presence of gas or other explosive matter?

A. No, sir; not to amount to anything. I have saw a little gas; I have lit a little gas.

Q. To what extent—a large or small quantity?

A. Just a small quantity. Well, I have lit back something like ten feet, I guess, on that entry—just a little flame right on top; it didn't amount to anything; it wasn't enough to burn me.

Q. It wasn't enough to burn you when it ignited?

A. No, sir.

Q. Did you ever report that to the mine boss or mine foreman?

A. Yes, sir.

Q. When would you notice the presence of gas there?

A. Sometimes it came in the morning and sometimes there wouldn't be any gas in the entry at all; maybe I would make a cut and strike a little feeder, and it would feed out during the day, but as soon as they reported to the fire boss, they always got the brattice up and got it out.

Q. Did you ever notice the presence of any gas when you first went in in the morning?

A. There was a time or two it was marked out, that is, marked "brush out." If you would turn the air on that would scatter the gas—what little would be in there—and then go on to work.

Q. During the time what was the condition of the mine—dangerous or safe?

A. It was safe, I suppose; at least I thought it was; if I hadn't I would not have been in there.

Q. When were you in there last?

A. I was in there the day of the explosion.

Q. Did you ever work in there with Bays?

A. Yes, sir; Ed Bays worked for me some when I was contracting—a few days.

Q. Did you ever have any of these gas explosions or the presence of gas that took fire when he was working with you?

A. There was one time.

Q. Where was that?

A. That was in the main Parral heading.

Q. How long did he work in there?

A. He worked in there something like a week; I have almost forgotten now.

Q. Did he work for anybody else besides you?

A. Not on that entry as I know of.

Q. During the time that he was working there you recollect of seeing gas once?

A. Yes, sir; I remember setting off some there once.

Q. You say you came out the morning of the explosion?



A. Yes, sir; I guess I was out something like thirty minutes before.

Q. What had you been doing in the mine that morning?

A. I had been caging at the foot of the shaft.

Q. Why did you come out?

A. The car jumped the dogs on the left hand cage from the engine house and tore out a couple of guides in the shaft. That was something about 9 o'clock, I guess, and we had to climb up to the cage, about forty feet, and pry the cage loose. We got that cage to the bottom and got the motor and pulled the car off the cage and took the cage to the top, and I believe the 12 o'clock whistle blowed just as we got on top; and the bank boss went to his dinner and the superintendent said he would put that cage on the chucks and hoist coal that evening on the other cage, and asked me if I would go home and come back, and I told him I would. I went to the bottom after 12 o'clock and hoisted one car; I got my bucket and went to eat a little bite of dinner, and walked over to the house and changed clothes and had my bank clothes off when it went off.

Q. Was there any alarm among the men that caused you to come out, as to danger of explosion?

A. No, sir; nothing only the cages had not been running that morning, and the diggers—lots of them—hadn't got any cars and they was to go out on that account—not getting any cars—not hoisting any coal.

Q. There was no alarm as to any possible explosion?

A. No, sir; I never heard of any at all—never heard any one say that they thought there was any danger of an explosion.

Q. What was the condition of the mine as to dangerous substances, so far as you knew?

A. I haven't been around over the mine to amount to anything for the last three months; but the last time I was around over the mine it seemed to be in pretty good condition, so far as I know. I don't know a great deal about mines.

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FRED GOLDING, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Fred Golding.

Examination by Attorney General May:

Q. Where do you live?

A. At Stuart.

Q. How long have you been living there?

A. Two years the 25th of next month.

Q. Where did you move from when you went there?

A. I moved from Davy, McDowell county, on the Norfolk & Western.

Q. How long had you lived there?

A. Six or seven months.

Q. Where had you lived prior to that time?

A. In Ohio.

Q. What is your occupation?

A. I am a coal miner.

Q. How long have you been a coal miner?

A. All my life; about sixteen or eighteen years.

Q. What is your age now?

A. Thirty-one.

Q. How long do you say you worked at Stuart?

A. I will be there two years the 25th day of next month.

Q. What were you doing there?

A. I done all kind of work—I dug coal, contracted and laid track.

Q. Where were you on the 29th day of January last?

A. I was at Stuart.

Q. In the mine that day?

A. No, sir.

Q. How long since you had been in the mine?

A. It was the Tuesday before that; Tuesday before the explosion was the last that I was in.

Q. What had you been doing between times?

A. I hadn't being doing anything; the guides were broke in the shaft and they were repairing it that week, and on Monday I didn't feel like going to work, and on Tuesday I didn't feel like working.

Q. During the time you were in there did you ever notice explosives?

A. No, sir; not to amount to anything. There was a little gas sometimes—enough to light but not enough to amount to anything.

Q. Who was fire boss the last few months before this explosion?

A. Jimmy Westleyholm and Jack Cowen.

Q. Their business was to go around each morning?

A. Yes, sir.

Q. Do you know whether they performed that duty or not?

A. No, sir; my places were always marked up.

Q. The places you found marked up, did you find them in a condition different from their marking?

A. Well, I found a little gas in them, yes; in one place.

Q. How would it be marked?

A. Just the day of the month.

Q. What would that indicate?

A. O. K. place. That is what I took it for.

Q. It indicated they were safe?

A. Yes, sir.

Q. And you sometimes found some gas in those rooms?

A. I found a little gas in the room there, yes, sir.

Q. How often?

A. There was gas in it from the time I found it until I stopped it.

Q. How often would you find that condition?

A. Every two hours.

Q. In that room, every two hours?

A. Yes, sir.

Q. Was that the case every day that you were in there?

A. Yes, sir.

Q. How much gas was there?

A. There wasn't much; I could light it in one corner and it would go across to the other; there wasn't enough to amount to anything.

Q. Enough to make it dangerous?

A. No, sir.

Q. What entry was that?

A. Second right on the east side.

Q. Who else worked in there with you?

A. John Morris; he was my partner; we had the contract there; he got killed.

Q. You had men working for you?

A. Yes, sir.

Q. Are any of them living?

A. Yes, sir; two of them are working.

Q. Who are they?

A. Polosh and Probiski. Probiski is here now.

Q. You say that was on the east side?

A. Yes, sir.

Q. That was which one?

A. Second right.

Q. You say Mr. Morris was killed?

A. Yes, sir.

Q. In this place?

A. I don't know where he was killed.

Q. You don't know where he was found?

A. No, sir.

By Mr. Dillon: Q. I believe you say on several occasions you found a little

gas. Was that after you would shoot the coal down?

A. Yes, sir; and before, too—a little, not enough to be dangerous; I didn't think it was dangerous, or I wouldn't have worked it.

Q. After the gas once catches fire it burns up all there is there?

A. Yes, sir.

Q. It wouldn't make an explosion—not enough to make an explosion?

A. It would burn; it will light in this corner and go across to the other, and maybe leave a light on the coal where there is a feeder, but we would throw a handful of slack on it.

Q. You would frequently find that when you would shoot down the coal—a little feeder running out that would catch fire?

A. Yes, sir; after you would shoot it down.

Q. You don't discover that until after it catches fire, do you?

A. Certainly, you can't discover it until it catches fire, unless you could hear it, and sometimes you can hear it.

Q. You can hear it running through the coal—escaping?

A. Yes, sir.

Q. If you are going in there would you be likely to find it when there was only that much there?

A. I don't know. I don't know nothing about gas. This is my first experience, here at Stuart, with gas. The first gas ever I saw lit in a coal mine was at Stuart.

Q. You wouldn't know whether that quantity would be enough to discover in testing for it or not?

A. No, sir.

JOHN PROBISKI, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of John Probiski.

Examination by Attorney General May:

Q. What is your name?

A. John Probiski.

Q. Where do you live?

A. At Stuart.

Q. How long have you been living there?

A. About three months.

Q. What have you been doing there?

A. Working.

Q. What at?

A. In the mines.

Q. Digging coal?

A. No, I worked for day wages for Fred Golden.

Q. What sort of work do you do? Do you load coal?

A. Loading coal, yes, for Fred Golden.

Q. What entry do you work in?

A. East second right.

Q. During the time that you worked in there did you ever notice the presence of any gas?

A. No, I never saw no gas.

Q. You never had any gas in there to take fire?

A. Some day little bit every day; little bit, not much.

Q. Did it ever take fire and burn?

A. No, little bit some day; little bit fire some day.

Q. What amount of gas was there?—enough to do damage when it would catch fire?—enough to hurt anybody?

A. No.

Q. How long had you been out when the thing exploded?

A. One o'clock up to 12 and I going home in the house.

By Senator Kidd: Q. You were not afraid of anything in there? You didn't see anything to scare you?

A. No.

JACK WALKER, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Jack Walker.

Examination by Attorney General May:

Q. Where do you live?

A. At Knoxville, Tennessee. You mean my native home?

Q. Well, yes.

A. Knoxville, Tennessee.

Q. Where do you live now?

A. At Stuart.

Q. How long have you been there?

A. A couple of years.

Q. What are you doing there?

A. I run a machine in the mine.

Q. Whom do you work for?

A. Will Morris, last.

Q. Where were you on the 29th of January?

A. I was in the mine five hours.

Q. What time did you come out that day?

A. Sometime between 1 and 2 o'clock.

Q. Why did you come out?

A. The contractor knocked off.

Q. Why did he knock off, do you know?

A. They had a wreck, I think, in the shaft, and he said there wouldn't be anything more doing that day.

Q. Was there any alarm among the men that morning as to any danger of an explosion?

A. Not as I know of. He just told me we wouldn't do any more that day.

Q. You hadn't heard anything of any danger?

A. No, sir.

Q. You simply came out because of the shaft being wrecked and you had trouble getting cars?

A. Yes, sir.

Q. Did you have any trouble in getting out?

A. No, sir.

Q. Did you ever notice the presence of gas in there, or dust?

A. No, sir. I didn't pay no attention to it.

Q. Did you ever work in any mines besides this one?

A. Not up here; this is the only gas mine I ever worked in.

Q. You never saw any here?

A. Yes, sir; I have seen gas here.

Q. In this mine?

A. Yes, sir.

Q. How much?

A. Enough to light—barely light.

Q. Where were you working—in what part of this mine?

A. First right, I think.

Q. Did Mr. Morris come out—the man you were working for?

A. Yes, sir.

Q. Did any of the men you worked with stay in?

A. There were two.

Q. Who were they?

A. Isaiah Fitz and David Fitz.

By Senator Kidd: Q. They were killed, were they?

A. Yes, sir.

Q. Did you see them after they were brought out?

A. I seen one of them.

Q. And you recognized him?

A. Yes, sir; I could recognize him.

Q. Was he bruised up any?

A. Yes, sir; David was bruised up.

Q. Who came up on the cage with you?

A. I don't know exactly who all came up on the same cage I did; I know of three.

Q. There were several of them?

A. Yes, sir; there was a cage full came up.

Q. How long had you been down in the shaft at work?

Witness: That day?

Senator Kidd: No; from the first—how many months?

A. I had been there something like two years.

Q. The mine was in operation when you came there?

A. Yes, sir; the mine was working when I came there.

Q. Did you ever hear any talk in that time among the men working there that there was enough gas to make it dangerous?

A. No; if I had I would not have been in there.

Q. You never say anything to alarm you?

A. No, sir; I just seen a little gas.

Q. The fan was kept running was it?

A. I don't know about that.

Q. How was it—cool or hot?

A. It was cold, the entry I worked on.

Q. The day you worked how was it?

A. The entry I was in was cold.

Q. When you came down to the mouth of the shaft how did it seem?

A. It seemed cold.

Q. Did you work with your coat on?

A. No, sir; I never worked with my coat on.

Q. You were comfortable?

A. Yes, sir.

Q. Not too hot nor not too cold.

A. If you wasn't working, it would be too cold.

Q. You heard no complaint about the heat?

A. No, sir.

Q. Did you go around any where over that entry?

A. Only where I worked.

Q. You were in there every day except Sundays?

A. About, yes, sir.

Q. Was there any talk among those coming up on the cage of any danger of explosion?

A. I didn't hear any.

Q. The mine was kept in good condition, was it?

A. As far as I know.

Q. How much powder would they let you take down at a time?

A. I didn't have anything to do with carrying any powder.

Q. You didn't do that?

A. No, sir.

Q. Do you know how much your contractor took down each morning?

A. He generally carried down two jacks of powder.

Q. That would last one day, would it?

A. Yes, sir.

Q. That is all they were allowed to take?

A. I don't know how much they were allowed to take down.

Q. How much is a "jack?" How much would it hold?

A. I don't know, sir, how much they hold.

FRED LOVING, a witness of lawful age, being first duly sworn, testified as follows:

## Testimony of Fred Loving.

Examination by Attorney General May:

Q. Where do you live?

A. At Stuart, Fayette county.

Q. How long have you lived there?

A. I have been there two or three times.

Q. How old are you?

A. Eighteen.

Q. What were you doing there?

A. I was laying pipe in the mine.

Q. How long have you been working at that?

A. A little over a month.

Q. Were you in this mine on the day of the explosion?

A. No, sir.

Q. How long since you have been in there?

A. One day. I had been in on Monday and it blowed up on Tuesday.

Q. The day before?

A. Yes, sir.

Q. Why were you not in on this day?

A. I just happened to be off; I don't know why it was; I wasn't feeling like working.

Q. You hadn't heard of any danger or anything of that sort?

A. No, sir.

Q. Had you ever heard any talk of danger among the men around that mine?

A. No, I never heard any talk.

Q. No fears were exercised by the workmen there that there was probability of an explosion?

A. No, none that I ever heard of, to amount to anything.

Q. None that you ever heard of to amount to anything?

A. I have heard men say—made expressions that the top of the shaft would be covered with women and kids crying some day, they didn't know when.

Q. Who did you hear say that?

A. I don't know exactly who I heard say that.

Q. Where would they say that?

A. I don't know why they would say it.

Q. Inside or out?

A. Inside.

Q. Did they say in what respect they had fears of danger?

A. No.

Q. You don't recollect who said those things?

A. No, sir.

Q. Or what they thought the danger was?

A. No, sir.

Q. Did you ever see anything in there that indicated danger of an explosion?

A. No, I haven't saw any—nothing that would blow the mine up; no.

Q. What had you seen?

A. I hadn't seen anything to amount to anything, only just what is in any mine.

Q. Were you ever in any other mine besides this one?

A. Yes, sir.

Q. What do you refer to?

A. I don't know of anything only just slate and posts and things like that, just as is supposed to be in any mine.

Q. Just a general fear that applies to any mine—that slate is liable to fall?

A. Yes, sir.

Q. Is that the nature of complaint you heard?

A. I don't know what the men would be thinking about when they would say anything.

Q. You just recollect of hearing the men say something would happen?

A. Yes, sir.

Q. You don't know what it was they were afraid of?

A. No, sir.

Q. How long before had you heard that?

A. A month or so.

Q. Had you heard it shortly before the explosion?

A. No, sir.

By Senator Kidd: Q. Had you a brother killed in there?

A. Three of them.

Q. What were their ages?

A. One was twenty, the other one sixteen and the other was about fourteen.

Q. What were they doing?

A. One was trapping, the other was driving, and the other was contracting.

Q. They had all gone down that morning?

A. Yes, sir.

Q. There were four of you working in that mine?

A. Yes, sir.

Q. Is your father living?

A. Yes, sir.

Q. Was he working there, too?

A. He is a dumper.

Q. He didn't work down in the mine?

A. No, sir.

Q. Any other boys—just the four of you?

A. Just the four of us; that is all.

By Delegate Duty: Q. Did they get all your brothers out?

A. Two of them; there is one in there yet, or supposed to be; I never saw but two of them.

By Senator Kidd: Q. Were they bruised up much?

A. No, sir; not to amount to anything; I never saw them until after they were dressed and put in the coffin.

By Attorney General May: Q. What part of the mines were your brothers working in?

A. One was working in the first left on the Parral side, and the other was trapping on the second left on the Parral side, and Harry—the one that was contracting—was contracting on the third left on the east side.

Q. On the opposite side of the shaft from where the other two were working?

A. Yes, sir.

By Mr. Dillon: Q. What other mines did you ever work at?

A. I worked in the Arbuckle mines.

Q. Any other besides Arbuckle?

A. No, sir.

Q. I believe you heard some people make some expressions about there might be an explosion or danger there; you don't know who said it?

A. No, sir; I don't recollect.

Q. You can't give the name of anybody?

A. No, sir.

Q. You don't know how long it was before this happened?

A. No, I don't have any idea.

Q. Nor they didn't say why nor for what reason it might be?

A. No, sir.

Q. You never knew of anything in there dangerous any more than in any other mine?

A. No, sir.

HARRY DEAN, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Harry Dean.

Examination by Attorney General May:

Q. Where do you live?

A. At Stuart.

Q. How long have you been living there?

- A. Close on to two years.
- Q. What is your age?
- A. Twenty-three.
- Q. What are you doing there?
- A. I was hauling coal there the last work I done.
- Q. Were you in the mine on the 29th—the day of the explosion?
- A. No, sir.
- Q. How long had it been since you were in there?
- A. I had not been in since Friday before.
- Q. Why hadn't you been in?
- A. I was laying off; that was all.
- Q. Had you laid off through any fear of danger of an explosion?
- A. No, sir.
- Q. How long did you say you had worked in that mine?
- A. It will be two years this coming May.
- Q. Driving all the time?
- A. No, sir; I did some contract work and sometimes I was laying pipe—most anything.
- Q. During the time did you ever notice any danger of gas or dust?
- A. No, sir, none that I know of.
- Q. Did you ever hear any talk among the men?
- A. Not as I know of.
- Q. You never heard of any?
- A. I knew there was some gas in there.
- Q. In what part of the mine did you notice gas?
- A. Most of it was on the west side, I think.
- Q. To what extent—in large quantities or small quantities?
- A. I couldn't tell nothing about it.
- Q. How did you know it was in there?
- A. Just one of them would put up a mark or something, and whenever I saw one I wouldn't go into it.
- Q. That was the danger mark—you had noticed the mark?
- A. Yes, sir.
- Q. Did you go into that room and work?
- A. No, sir; not until it was brushed out.
- Q. Did you ever notice any in any other place?
- A. Sometimes.
- Q. Where would that be?
- A. On the right side of the bank, some.
- Q. In what quantity?
- A. I have set some off in there myself upon that third right.
- Q. Much of it?
- A. No, sir; never enough to burn me.
- Q. When there was enough to catch and not burn, did that indicate there was very much gas?
- A. No, sir; there wasn't enough to amount to anything: just enough to light and go out.
- Q. You had never heard any complaints among the men that there was danger of an explosion or anything of that sort?
- A. No, sir; nothing that I remember of.
- By Mr. Dillon: Q. Did you have plenty of air, Mr. Dean?
- A. Yes, sir, there was always pretty good air, and I worked all over the bank.
- Q. Was it cold?
- A. It would blow a lamp out, pretty near, around them trap doors: you had to keep moving or wear a lot of clothes.
- Q. Did you ever work in any other than that one?
- A. I worked in the Parral mine.
- Q. Any besides those two?
- A. Yes, sir, I worked all over the Kanawha river.
- Q. Do they have any gas in the Kanawha field?
- A. Not as I know of.



By Delegate Strickling: Q. Were there ever any openings that you worked, marked dangerous?

A. Only with the brush mark, for you to know not to let your lamp run up against the roof.

By Delegate Duty: Q. How are they brushed out?

A. They take what they call canvas and run the air up against the face with it, or take a coat and knock it out.

Q. Do the workmen do that?

A. The fire boss; if he gets there he will. I have done it myself. When I go in a place and see a mark I always find out how much it was and take a coat, an old hat or something, and wave it around the side of the coal and it will leave.

By Mr. Dillon: Q. Where you found that was up next the face of the coal?

A. Right against the face of the coal. There was only one entry that I worked—contracted—that had gas.

By Attorney General May: Q. What entry was that?

A. What they call the third right.

By Delegate Strickling: Q. How many entries did you work in?

A. I worked pretty near all over the bank. I contracted at three different places.

Q. In what three?

A. Second left, third left and third right.

Q. On the east sides?

A. On the east side.

Q. Did you ever work any on the west side?

A. I have hauled coal down there; I never done no contracting there.

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FRED BURGESS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Fred Burgess.

Examination by Attorney General May:

Q. What is your name?

A. Fred Burgess.

Q. Where do you live?

A. At Stuart.

Q. How long have you been living there?

A. About three years.

Q. What were you doing there?

A. Mining.

Q. Working in the Stuart mine?

A. Yes, sir.

Q. Did you work on the 29th day of January?

A. Up until twelve o'clock I was in the mine.

Q. What made you come out that day?

A. About half past 10 o'clock we had a breakdown in the shaft and that is how it came we went out.

Q. Did you hear any rumor of any danger there that morning among the men?

A. No, sir.

Q. Had you ever heard any in your conversation with the men during the time you were there—any fear that the presence of gas would produce an explosion, or anything of that sort?

A. No, sir, I never did.

Q. What was the general condition of the mine?

A. I thought it was good.

Q. Did you ever work in other mines besides that one?

A. Yes, sir.

Q. How long have you been mining?

A. About thirteen years.

Q. How was the condition of this mine as compared with others?

A. I thought the condition of the mine was good because they had a good fan there—a little better fan, I believe, than they have at the other shafts. It was extra good I thought.

Q. For that reason you had no fear of danger?

A. No, sir.

Q. Have you been back in the mine since the explosion?

A. Yes, sir.

Q. To what extent have you been in?

A. I helped get out about twelve or thirteen of the bodies that was in the explosion.

Q. Have you ever made any investigation to satisfy yourself as to the cause of the explosion?

A. I didn't make an investigation myself; I was with Mr. Pinkney and Mr. Rice, and they made an investigation.

Q. Did you find anything in there that would lead you to conclude what was the cause of it?

A. Nothing more than what they said was the cause of it, and which it led to show that way. We found on the third left, I believe it was, a blow-out shot there.

Q. What is a blow-out shot?

A. That is a shot that is overcharged, I suppose is about the way you would term it, and instead of breaking the coal down it blows out.

By Senator Kidd: Q. No result?

A. No result from the shot.

By Attorney General May: Q. And that will cause an explosion of this sort, will it?

A. Well, I couldn't say that.

Q. You don't know whether it would or not?

A. No, sir; I don't.

Q. That is merely a conclusion you reached simply because you found no other reason?

A. That is the only one.

Q. How many came out with you when you came out of the mine the last time?

A. I think there was nine.

Q. Who were they?

A. Charley Akers, Dick Peterson and Albert Teary.

Q. That is a colored man?

A. Yes, sir. Will Morris, and an old fellow by the name of Gray, I believe was his name. I think there was nine on the cage when we came out.

Q. How long had you been out when the explosion occurred?

A. I guess I was out about half an hour or something like that.

Q. Where were you?

A. I was at my house; I had just washed and was lacing up my shoes or combing my hair, or something.

Q. Did you go back then to the shaft?

A. Yes, sir.

Q. How long was it before you got there?

A. It was only a short while—about five minutes after the explosion.

Q. Did you go down in the shaft?

A. No, sir.

Q. Did anybody try to go down?

A. Yes, sir. Mr. Davis, Mr. Dixon and Mr. Westleyhohn. I think, tried to go down.

Q. Did they go down?

A. They got down about sixty feet, I believe, and had to come back.

Q. What was the condition of that mine as to being extra wet or dry?

A. There was some parts of it wet and some dry.

Q. What parts were wet and what parts were dry?

A. On the east side of the mine, on the left hand side, the east side was wet.

Q. The west was the Parral side, wasn't it?

A. Yes, sir. The first left and second left was not unusually dry, but was termed dry.

Q. In which of these regions was it you think the explosion came from?

A. My opinion was it came off the third left on the Parral side.

Q. That was on the dry side?

A. Yes, sir.

By Delegate Strickling: Q. Where did you work?

A. On the second left on the east side; that was the damp side.

Q. You were working on the damp side?

A. Yes, sir.

By Senator Kidd: Q. How was it the morning you were in there before the explosion—was it cold or very hot?

A. It had about the same temperature it always had; it was cold.

Q. Not too hot to oppress you in any way?

A. No, sir.

Q. Any dust?

A. No, sir.

By Delegate Strickling: Q. Was there any gas in the mine?

A. Well, if there was gas in the mine it was some place where I didn't know where it was at. I followed track-laying for a couple of months prior to the explosion and on Monday I was laying track—on Monday before the explosion I was in Parral heading, and I used an open light, and if there was any gas any place I didn't know it.

By Attorney General May: Q. That was on the day before the explosion?

A. On Monday; yes, sir.

Q. That was up in the region where you think the explosion came from?

A. Yes, sir.

By Delegate Strickling: Q. When you came up were there other men at the bottom of the shaft?

A. Yes, sir; there was some other men at the bottom of the shaft when I came up.

Q. Did they want to come up also?

A. I don't know; they didn't say whether they did or not.

Q. Did they make any effort to get on the cage?

A. No, sir; in the cage I came up on there was nine with the cager; I believe he was the last one.

Q. How many will the cage hold?

A. Ten. Well, it will hold fifteen, but they generally let ten ride.

Q. Had the fan been running the night before?

A. Yes, sir.

Q. It was running all day, the day of the explosion, and at the time of the explosion?

A. Up until the time of the explosion.

Q. Is that fan run night and day?

A. Yes, sir.

Q. Run when there is no shift in at night?

A. Yes, sir; that runs all the time.

On motion of Mr. Kidd, the Committee adjourned until Thursday, February 14th, 1907, at 7:30 o'clock p. m., at the Governor's reception room.

#### THURSDAY, FEBRUARY 14, 1907.

The Committee met at the Governor's reception room in the capitol building, Charleston, West Virginia, on Thursday, February 14, 1907, at 7:30 o'clock p. m.

Present: Messrs. Gartlan (Chairman), Kidd, Duty, Mitchell and Strickling.

Hon. C. W. May, Attorney General, on behalf of the State; and

Hon. C. W. Dillon, on behalf of the mine owners.

The taking of testimony was resumed.

J. O. BROOKS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of J. O. Brooks.

Examination by Attorney General May:

Q. What is your name?

A. J. O. Brooks.

Q. Where do you live?

A. At Clarksburg, West Virginia.

Q. What is your business?

A. Mine superintendent.

Q. For whom?

A. For the Clarksburg Fuel Company, the Pittsburg & Fairmont Fuel Company, and the Fairmont Coal Company.

Q. How long have you been acting in that capacity?

A. Four years, at that particular place.

Q. What has been the extent of your experience in mines?

A. About thirty years.

Q. In what way?

A. I drove a mule, and from that up—laid track and was mine foreman and superintendent.

Q. You have been superintendent for about four years?

A. No, only at Clarksburg. I have been superintendent altogether about twelve years.

Q. As such superintendent what are your duties?

A. Looking after the operating end of the work.

Q. What is that?

A. Getting out the coal, looking after projecting the work and the maps, and seeing that the mine foremen and superintendents under me perform their duties.

Q. Have you ever made an examination of the Stuart mine, in Fayette county, where there was an explosion on the 29th of January last?

A. I was there on the 11th and made two trips on the inside—one just about noon and the other after dark.

Q. Have you anything prepared to show the result of your examination of that mine?

A. Yes, sir; I have a report.

Q. Will you read that to the committee?

A. Yes, sir. I have it addressed to the Chairman.

The witness here read the report as follows:

CHARLESTON, W. Va., February 14, 1907.

HONORABLE THOMAS GARTLAN,

Chairman of Special Committee on Stuart Mine Disaster.

Sir:

Pursuant to the direction of your Committee, I accompanied the Committee to the Stuart mine, in Fayette county, at which occurred the explosion now under investigation, and spent Monday, February 11, in and about the mine.

I made two descents into the mine and attempts to visit what is supposed to have been the initial point of the explosion in the mine. On the first occasion, in the forenoon, in company with Chief Mine Inspector Paul, District Inspector Absalom and Mr. Pinkney of the White Oak Colliery Company, and one or two others; again, in the evening after dark, in company with Mr. Samuel Dixon and District Mine Inspector Henry.

While the natural ventilation of the mine appeared to be unusually good, I was informed that the fan had not been running for several days and one of the entries through which the ventilation current should pass was stopped up with water, being in a low place, so that the current of air was interrupted. We were, therefore, unable to reach what is believed to have been the initial point of the explosion. On the first occasion we got as far as the first right hand entry on the Parral side of the Stuart mine; on the second occasion, within two hundred feet of the same point, the distance from the shaft by the way traveled being about 1200 to 1400 feet.

On each occasion at the point named gas was detected in such quantities as in the judgment of those in the party to render it unsafe to proceed further.

Upon the first and third points to which the inquiry of your committee is specifically directed by the resolution raising the committee, I do not think you will expect any report from me—whether the Stuart mine at the time of the accident was being operated in violation of law, and if so, in what particulars; and the condition of the bureau of mine inspection involving the consideration of facts which your committee is now engaged in ascertaining.

As to the second point, viz: "The cause of the disaster at said Stuart mine, and other like disasters occurring in the state within the recent past," I beg to say that my report must necessarily be confined to the Stuart mine, and that from my examination thereof I am satisfied of the following facts:

(1) That the Stuart mine was a well planned and laid out and properly worked mine of its type, supplied with all necessary machinery, including ventilating apparatus, and in every way was in excellent condition immediately prior to the explosion.

(2) That the explosion was of gas and not of dust. The mine is a very dry one in the parts which I visited, and the usual amount of dust was visible in and along the entries, but the dust showed no trace of combustion, not even the extremely fine dust adhering to the sides of the entries and props. If dust had participated at all in the explosion, there would have been evidence of the fact in the shape of charred particles of dust; and the dust on the floor of the entries and on the ties of the track in the entries and elsewhere would have shown more evidences of disturbance than were visible, and the finest dust would not have remained mixed as it was with the coarse dust, but a large portion of the fine dust would have been consumed in the explosion, leaving the coarse dust more or less charred. In the part of the mine which I visited, there was no evidence whatever to justify the opinion that the explosion was one of dust.

If the explosion was, as I believe, a gas explosion, and the fan had been running, as I understand is the fact, for several days, the gas which caused the explosion might have come from a pocket of gas unexpectedly tapped in mining, or it might have accumulated as the result of the failure to keep closed some door directing the ventilation current. When the gas had accumulated it might have been set off by a naked lamp, a blow-out shot, or possibly by a fall of slate or coal striking and breaking and short circuiting an electric wire, causing sparks.

Not being able to get to the initial point of the explosion I have not been able to formulate any theory either as to the cause of the accumulation of gas, or the cause of its ignition. I am satisfied that our party did not reach the initial point of the explosion because the direction in which the timbers, doors, etc., had been blown by the explosion, showed that it had its origin further back in the mine than the farthest point we reached.

As to the fourth point, viz: "What further legislation is necessary in order to prevent the recurrence of similar disasters," I beg to say that I had the honor of being one of the commission appointed by the Governor of this State to consider and report as to what additional mining legislation, if any, should be recommended to the legislature now in session for securing improved and safer conditions in mines in this State.

This commission but recently completed its work and made a report to the Governor accompanied by several bills, the passage of which was recommended. I think now, as I thought when I signed the report, that our mining legislation would be improved by the passage of these bills, or ones substantially the same, and I have seen nothing in connection with the Stuart disaster, nor learned anything in any other way since, to lead me to make any recommendation in addition to those embodied in the bills aforesaid.

As important as proper mining legislation and proper mine rules suited to local conditions at each operation, is strict obedience to and observance of the law and the mine rules by those in charge of and those employed in a mine. One of the principal defects in our existing mining legislation is the lack of suitable penalties for violations of the law, and the bills accompanying the report of the commission aforesaid were largely intended to correct this defect.

Very respectfully yours,

J. O. BROOKS.

Witness: I will explain by saying that in the report where I say that the natural ventilation of the mine appeared to be "unusually good" I mean it was unusually good in a mine where the fan had not been running, as I was informed, for four or five days.

Q. That report is correct, is it, in your judgment?

A. Yes, sir.

Q. You say that you were informed that the fan had not been running for several days. Do you refer there to days immediately prior to your visits?

A. Yes, sir.

Q. Or prior to the explosion?

A. No; prior to my visits.

Q. Where did you conclude the initial point of the explosion was, Mr. Brooks?

A. I couldn't arrive at any conclusion, because as far as I have gone there was evidence that it was beyond that point.

Q. The statement in here that you were unable to reach what is believed to have been the initial point of explosion, is simply based on the fact that you did not find it as far as you went?

A. No; and I went as far as I thought it was safe to go, on account of the accumulation of gas that I found.

Q. From what inspection and examination you made of this mine, are you able to tell the committee whether or not it is a gaseous mine?

A. No, I would not; that is, whether it would give off gas all the time; I couldn't tell that, no.

Q. You say that the mine was a well planned and laid out mine of its type, and supplied with all necessary machinery, including ventilating apparatus, and in every way was in excellent condition immediately prior to the explosion. How did you ascertain that fact?

A. From the timbering the mode of timbering, the condition of the tracks that were not covered up from falls, and the general method of handling; that of course is all there; you can see what the system was.

Q. You say that the explosion might have come from a pocket of gas unexpectedly tapped in mining. Can you explain how that could have happened?

A. I have known several instances where they would strike extra quantities of gas. We term them "blowers," about the mine. Very often if you can find a fault in a mine, in drilling to it the gas will blow right out of the drill-hole; we have that right along.

Q. And that gas would ignite there, would it, if a man had an open lamp or something of that sort?

A. Yes, sir.

Q. Can a thing of that sort be foreseen or not?

A. No; you can't tell until you hear it, unless you just happen to get a small quantity of it to light it.

Q. What precautionary measures could be used to prevent gas struck in that way from igniting?

A. The only thing is for the men to leave there that had the light?

Q. Is that possible?

A. Yes; if he got it in any pressure at all, you know he would know it was gas; he would know it would not be a safe place to have an open light.

Q. He would have to do that by hearing, ordinarily, wouldn't he?

A. Yes. Well, it might feed out in smaller quantities during the night, so that when he stripped off a fault, it might feed out enough sufficient to cause an explosion; unless you had a fire-boss in there, it might accumulate around and take in the other sections of the mine that was any particular distance ahead of the air. Of course if you have the air up to that face; you can't keep the air at the face all the time without brattice. They usually put up a brattice to conduct the air up to the face.

Q. Will that prevent it?

A. That will not prevent it, no, sir; that will just mix with the air sufficiently to allow you to go ahead and do the work. It won't prevent the escape of gas.

Q. But it will prevent the gas from being ignited, or remaining there—prevent any danger?

A. Well, yes, there would not be any danger to amount to anything.

Q. Now, you say this pocket of gas is liable to be struck in any mine?

A. Yes, sir; any that I ever saw.

Q. Is there any way of foreseeing or foretelling its existence?

A. No, sir.

Q. What is that?—gas that simply accumulates in the coal?—natural gas?

A. Natural gas.

Q. Explain to the committee what you mean by the statement that it might have accumulated as the result of the failure to keep closed some doors directing the ventilation current?

A. They use doors to conduct their air and take it to points where they want it. They usually have boys there that open and close those doors and allow the men to pass backwards and forwards with trips of coal, mules, motors, and so forth. Very often a boy will go off and leave that door open. If he does, the air short circuits at that point.

Q. You say that this gas might be ignited by a fall of slate?

A. Yes; if there was something more to it.

Q. You say when the gas is accumulated it might have been set off by a naked lamp, a blow-out shot, or possibly by a fall of slate or coal striking and breaking and short circuiting an electric wire, causing sparks?

A. Yes, sir.

Q. Mr. Brooks, could it be possible for gas to accumulate in a quantity in any of those rooms that would have caused an explosion such as this one, between the time that the fire-boss should have been in there and the time that the explosion occurred? Was it possible?

A. Yes; you get those things very quick sometimes.

Q. In some rooms, though, where there had been no shot that morning, the fire-boss, I believe, testified he went in from 4 to 4:30. Say from 4 o'clock to 1:20 could there be a natural accumulation of gas in there, in the absence of a shot or something of that sort, in any of those rooms, that, had some miner walked into a room at 1:00 would have produced this explosion?

A. Yes; that may have accumulated in a room that was abandoned. It could do that, and a fall of slate would rush that out. The fire-boss probably had not been in it and there was no occasion for him to go in. There could have been an accumulation in a place like that and a very large quantity of gas.

Q. That could happen at any time, of course?

A. Yes.

Q. And if it had happened in a room at this moment and rushed out to a wire, would that have set it off?

A. No; not unless it was a broken wire and caused a short circuit. You would have to get a short circuit with something to make a spark to ignite it.

Q. Some miner going through with his lamp, of course, would set it off on a car, if he had been close enough to it?

A. Yes.

Q. What would have been the probability of this gas accumulating in some room or entry, say, after the fire-boss was in that morning? Would it be possible or probable?

A. It would hardly be probable that it would accumulate unless they struck a pocket.

Q. Unless somebody had been working in there?

A. Yes; if it was not there when the fire-boss was there.

Q. If it would not accumulate in the room during the night preceding, it would not be likely to accumulate in the forenoon?

A. Not unless somebody had been working and opened it up.

By Delegate Duty: Q. Mr. Brooks, in the rooms that have been abandoned and where gas might have accumulated is it possible to prevent the escape of the gas further than that room by casing it up some way?

A. They don't as a rule case them up. They try to keep ventilation in there to keep that room clean. There is a place where they brattice them up. If they are not doing pillar work they usually case them up and put up a danger signal—a sign—wherever there is any chance for danger.

Q. While it might not be customary to do so is it possible to case up an aban-

doned room so as to prevent further escape from the room into the main channels of the mine?

A. It would be possible, but it would not be practical at all.

Q. Is it possible for the current that usually passes through the mains into a mine to clear those rooms of the gas by the usual course of the air?

A. The regular mining practice is always to dilute the gas sufficiently with pure air to render it harmless.

Q. Is it possible to brattice the gas out of an abandoned room simply by the usual course of the air through the mine? Would it not pass by the portal of the room and leave the gas still in the room?

A. No; that depends altogether on how you want to answer the question. You have got your openings here [indicating on map] passing between these abandoned rooms; they are laid out in panels—blocks; every so many feet there is supposed to be an opening made between those blocks. Of course if anything happened to be in one of those openings between the rooms the breakthrough would be closed up and it might cut the current off from that room; then this one room would be dangerous. Still the air might come into the next one. It passes through, you see, at one of these openings. If one of these openings becomes stopped up from a fall or anything that might happen in there, it would cut the air off from that room and allow an accumulation.

Q. If the air in its usual course through the mine would clear those rooms of the gas why is it necessary to put up a warning of danger to keep out?

A. That is a caution.

Q. What I am trying to get at is why it is necessary to put up a warning of danger to a room when the usual current through the mine would clear it?

A. The way I answered the question before was in case anything would happen. An abandoned room, you know—we don't usually go into them and give them the attention that you would a working place. Anything that would happen in one of those places you would not know whether anything had happened or not. This caution is put up for fear something would happen in there.

Q. Is that the only explanation you want to give to that?

A. I want to make it just as plain as I can possibly make it for you.

Q. If gas will accumulate in a room so as to make it dangerous and make it necessary for the fire boss to place a warning at the portal or entrance of the room, why is that necessary when the usual course of the air through the mine keeps it clear?

A. I can answer that on a piece of paper and explain it to you if I can't get the language so that you will understand what I mean. (Witness here indicated on paper and said): We have a current of air passing up here; we close these openings up between these headings—they are parallel—by driving these breakthroughs here; we brattice up this breakthrough and that throws the air up to the next one and it comes back. That is the way you conduct your air so as to get it to the place where the man is at work. Every time you make one of these cross-overs you close up the air behind. Here are your rooms and here are the cross-cuts. Say, for instance, these two rooms had been abandoned; you have a current of air coming down here. Suppose in this one something had happened, and it would be filled up; that air short circuits there and comes down to this room and does not get out. This is just a precautionary measure—when these rooms are worked out and abandoned—to put up a danger signal. There isn't anything in there that anybody needs and there is no occasion for them to go in there. In fact, if you put up a notice there it is sufficient for a man to stay out.

Q. Then it is possible for gas to accumulate in an abandoned room and not be brushed out by the air?

A. Yes, sir.

Q. Is it possible for gas to generate or escape into one of these abandoned rooms, either, so as to make a sufficient quantity of gas to cause an explosion in a room?

A. No; that would depend altogether on the size of the room. They will fill up. All gas lies at the top and just keeps on filling down, as it accumulates, until you get considerable of a magazine in there.

Q. Would it be sufficient to make an explosion in a mine?

A. Yes, sir.



By Delegate Strickling: Q. Would it be sufficient to make an explosion in a mine—such an explosion as was had in this mine?

A. No, I don't think so; that is, not one room, I don't think, unless it would, as I said strike a heavy feeder.

Q. If this feeder was struck by a workman in one of the rooms, was it possible that the amount of gas should escape to cause the explosion that was caused in this mine, before being set off by the workmen?

A. No; I think if you would strike one of these feeders, the man would get out; the man would leave immediately; he wouldn't stay at all.

Q. If he did not get out and his lamp exploded that gas there couldn't possibly be enough gas escape to cause the disaster that was caused in this mine, could there?

A. No; if he had ignited it—if there had been that much accumulation—it would have burned just like a flambeau or a gas torch.

Q. Judging from the damage done in this mine I will ask you whether or not you have an opinion as to whether it was a small quantity or a large quantity of gas that exploded?

A. Large quantity.

Q. More than was possible to be collected in one of these rooms?

A. Well any room that I saw. As I said, I couldn't get into the rooms, I didn't get far enough back; I don't know the sizes of these rooms, or any part of the territory except that which we visited, and I couldn't determine the initial point of the explosion. Of course I don't know what they have beyond that—how much territory they had there—that it would have been possible to have had that accumulation.

Q. These rooms that the miners work in, in the ordinary course of things, as the mine is ventilated, is the air driven directly into these rooms from this coal facing?

A. Yes; they do that with doors and checks at the head.

Q. What do they mean when the miner goes into his room to work in the morning—that there is some accumulation of gas that he must brush out?

A. They might have a very small quantity—enough to burn a man, but not to make an explosion of any extent. Of course, whenever you ignite the gas you have an explosion, and it always goes to the amount of gas you have there.

Q. If the air is forced directly in these different rooms, and you have your circuit of air, that would carry out the gas, wouldn't it?

A. Yes.

Q. Then why does the miner have to brush it out with his coat or something else?

[The witness here explained to Mr. Strickling by indicating on the map.]

Q. Then there are rooms in the mine that the air is not forced into unless it is forced in by some mechanical arrangement?

A. Yes, sir.

Q. And when miners talk of brushing out their rooms it means rooms where there is no direct current of air, and the gas accumulates?

A. Yes, it is just up to the face.

Q. How much of this mine were you able to travel over, Mr. Brooks?

A. [Referring to map.] I started at the bottom of the shaft and traveled down this heading east.

Q. You went east of what point?

A. East until the first right; then the motor road back to the first left on Parral side or west side to the mouth of No. 3 room. Then I came back the same route.

Q. Then you were able only to go over a very small part of the mine?

A. Very small.

Q. You say you discovered gas in the mine?

A. Yes, sir.

Q. A small or large quantity of it?

A. Well, it was about, I would say, fifteen inches from the top down to where I first caught it on my lamp. It fills from the top down; I could raise my lamp up and catch the gas in the lamp, and you know that there is gas from there up.

Q. From the amount of gas that you discovered in this mine would you consider it a gaseous mine?

A. That particular section, yes, sir; that is, it indicated it there.

Q. I will ask you to state if you believe that the explosion that occurred in this mine could be caused from a small quantity of gas in any one of those rooms or headings?

A. No; there would not be sufficient gas in any opening that I saw there—that is, in a room—to cause an explosion of any extent.

Q. What extent of gas do you think was necessary in this mine to cause this explosion?

A. I wouldn't want to undertake to answer that question; I would not pretend to say; but it is very evident there was a lot of gas.

Q. Do you believe that a sufficient quantity of gas could have accumulated in this mine to have caused the damage and destruction it did, if the machinery had been working properly and ventilation had been proper in this mine?

A. As I explained awhile ago, it could have been penned up there some place, and a fall would rush it out, and a heavy pocket struck, or even a rock fall off and open a pocket some place, and there would not have been anybody there until it had accumulated and filled up a large territory.

Q. That brings us back to the first question: I understood you to say that you didn't believe a sufficient amount of gas could accumulate in these abandoned rooms to cause that much damage?

A. Not in one room.

Q. Then to have enough gas to cause this damage it would take, in your opinion, gas accumulating in more than one room?

A. Yes, sir.

Q. Do you know how many rooms are in this mine that have been abandoned?

A. No, sir.

By Delegee Duty: Q. Were you in any rooms during your trips?

A. No, I wasn't in any rooms; I traveled the heading entirely. I expected, when I got up in there, to go to some rooms, but got the gas before I got that far.

Q. If the initial point of this explosion occurred in a room where men were working at the time, where could the gas have been that would have caused this terrific explosion?

A. It could have been located in a number of those abandoned rooms, and had a fall come down; these abandoned rooms, if they had gas enough, a heavy fall stirs the air—it pushes it—moves it.

Q. If there were no abandoned rooms, and if there was no gas forced out of these abandoned rooms, and this explosion took place in a room where the men were working—that is, the initial point—where would the gas have been that caused this explosion?

A. I don't know.

Q. To make it plainer: If the initial point occurred in a room where men were working, the explosion would have to be communicated to where the gas was?

A. Yes, that is the idea.

Q. Where would the gas naturally be that would communicate this to other parts of the mine, if any distance away?

A. It would have to be in the heading; there would be no other place for it.

Q. Is it possible to accumulate along the ceiling, along the passage-way?

A. It would if there was no ventilation there to take it out.

Q. Then if this gas did come from abandoned rooms in the manner described by you, your opinion then is the gas was the accumulated gas on the ceiling or top of the mine?

A. The headings. You understand the heading is the full size of the opening; and in the way you express it, you mean just along the top of the roof. What we call the heading is the full size of the passageway; we call that the heading.

Q. In your opinion, should the fire boss have discovered the presence of gas that morning in the mine?

A. Yes; if there was gas in there he should have discovered it, except it would have been, as you say, in the abandoned rooms.

By Attorney General May: Q. You said awhile ago that it would have taken a large amount of gas to have produced this explosion.

A. Yes, sir.

Q. Could that amount of gas have existed in that mine there that morning without the fire boss discovering it?

A. Not unless it would have been in abandoned work: it couldn't naturally be there without him discovering it, in the working places.

Q. If it had been in abandoned work how could it have come in contact with the fire that set it off?

A. By a fall that rushed it out.

Q. You stated there would not be a sufficient amount of gas in any one room to produce this explosion, I believe, didn't you?

A. Yes, sir.

Q. Well, how would a fall of slate or rock or anything of that sort in one room drive the gas out of more than one room?

A. Oh, yes; if the rooms were communicated together with cross-cuts and that fall makes a circulation of gas, that would carry it out—a rush of air.

Q. And that could happen in a few moments' time, could it?

A. Yes.

Q. If those abandoned rooms in which this gas might accumulate and from which it might be expelled by a fall were properly examined each morning by the fireboss, the same as the other rooms of the mine, would that prevent the possibility or probability of an occurrence of that sort?

A. They would know where it was and then they could take the other precaution, such as bratticing, and so forth, to seal them up.

Q. Then if this explosion should be the result of the accumulation of gas in abandoned rooms, it is possible to adopt methods to prevent its occurrence, isn't it?

A. Yes; it is possible to do it but it is not a practicable proposition.

Q. If it is possible to do it how would it be possible?

A. Take masonry and seal that up as tight as you can get it, and then if you got any pressure on it, it would come out through the core—bleed out, just like water would come through a stratum.

Q. Then the use of masonry would not make it possible?

A. No.

Q. Then in what way would it be possible?

A. That is what I say: It is possible to hold it to a certain point but it is not practical, because the masonry would have to be so tight you couldn't get it done; you never could get the masonry all in.

Q. Then it is not possible, is it?

A. Well, it is hardly possible to be done right.

Q. Couldn't you arrange the ventilation of the rooms so as to prevent its recurrence?

A. Yes, you could arrange the ventilation, but it would be necessary to have your fire boss visit those places every day.

Q. Now, if the fire boss visited those places every day and the ventilation was arranged properly, would that prevent it?

A. Yes, sir; ventilation, you know, will prevent it any place if you put sufficient fresh air in it.

Q. Then it is possible in that way to prevent the accumulation of this gas there that might have produced this explosion?

A. Yes, sir; to that extent; if you ventilate it you can keep it out unless some of these unforeseen things happen.

Q. What are they?

A. As I said, the falls that would close up. The fire boss would go in here in the morning and examine this room and not find any gas, at ten minutes after 5, and two minutes after he had gone out of there, there could be a cross-cut that would get closed up and shut the current off and he wouldn't know there was any gas in there until the next morning.

Q. You mean as a result of that fall a pocket of gas might be loosened?

A. Yes; that might be loosened, and the accumulation that might be there would be thrown out by the fall.

Q. But if he had gone through there and made the proper ventilation so as to throw it out—[Interrupted.]

Witness: I think you have misunderstood the proposition, the way I understand you.

Attorney General May: Explain yourself.

Witness: A man goes in here in the morning; [indicating on map] the fire boss goes into this room and discovers it perfectly clear and there isn't any gas in there; after he goes out it is possible for that cross-cut to close up.

Q. In what way?

A. From a fall. Now, then, he hasn't any gas in there when he makes his examination—the room is perfectly safe; this fall comes here and shuts the current off of that room; it short circuits and goes out the other way; now, then, if the mine is giving off any gas and that part of the room is giving off any gas, the circulation he has had in there previous to this time has kept it clear, but the fact that this has fallen in, stopping the circulation, it is possible for that gas to stay there.

Q. Now, would it be possible for a fall of that sort in one room, or cross-cut, to produce a sufficient amount of gas to have produced the explosion in this mine?

A. I don't think so.

Q. You don't think so?

A. No, sir.

Q. Then, the probabilities of it occurring for that reason are very slight, are they?

A. Yes, sir.

Q. In fact, do they exist at all in your judgment?

A. No, I don't think there was anything of that kind occurred there, because there was too much of it; that is, unless there is workings there that I didn't examine.

Q. There was too much of the explosion for it to have occurred in that way?

A. Yes, sir.

Q. Now, then, Mr. Brooks, tell us, if you know or have any reasonable idea, how the gas that produced this enormous explosion could have been produced there that morning without the fire boss discovering it?

A. I don't think it possible without the fire boss discovering it.

Q. Then if the fire boss had made a thorough investigation there that morning, you think he would have found that gas, do you?

A. Yes, sir.

Q. Then in your judgment you think that the gas was there and was not discovered by the fire boss?

A. Yes, sir.

Q. And had he properly discharged his duties, the explosion perhaps would have been thereby avoided. Is that your judgment?

A. Well, now, not reaching the initial point, I wouldn't want to say that.

Q. Not having made a thorough investigation you would not want to answer that question?

A. Not being able to make it. I made it thorough enough as far as I could go.

By Delegate Strickling: Q. Taking into consideration the size of this mine, in your judgment can one fire boss examine that mine in two or three hours?

A. Yes; one man ought to take care of that nicely.

Q. How far would he travel in examining that mine?

A. I would judge he would travel three miles or maybe more; that would be determined, you see, from scale; taking the number of working places and the distance they are in; you would have to have your map up-to-date; they change a little every day.

Q. It is the duty of the fire boss to go into all the rooms?

A. All the working places, yes, sir.

By Delegate Duty: Q. And not his duty to visit those abandoned rooms?

A. He does that, as a rule, after he has made the examination of the working places.

By Delegate Mitchell: Q. Now, Mr. Brooks, you speak of the gas escaping

when you are tapping a pocket with a drill, with sufficient force to make it whistle so as readily to be detected; and that would be what size hole that they generally drill in?

A. That depends altogether whether they are drilling for coal or whether they are drilling in a fault, where I explained we usually get this blow of gas. They get holes as much as two and a half, two and a quarter, and an inch and three quarters.

Q. It averages over two inches, does it?

A. Yes, it averages over two inches in diameter.

Q. That would afford a considerable volume of gas in a very few minutes?

A. Yes, with any pressure.

Q. If there is pressure enough to make a noise in a two-inch hole, it is probable that there would be a considerable volume of gas in a very few minutes?

A. Yes, indeed.

Q. Is there any other way by which you reach those pockets? Isn't it possible that in putting off your shots—blasts—that you can open a fissure in connection with one of those pockets and yet not ignite that gas by the discharge?

A. Yes, sir.

Q. Then the miner, when he shoots, leaves and hides himself from the effect of that shot?

A. Yes, sir.

Q. If, under those circumstances, he should open one of those pockets, he might find his room very densely crowded with gas by the time he got back. Is that so?

A. Yes, sir.

Q. And the explosion occur from that?

A. Yes, sir.

Q. Another thing which is not plain to my mind is in regard to the brattices. I understand that a brattice is used for the purpose of conducting the air current to a point?

A. Yes, sir.

Q. You spoke of the exclusion of breakthroughs there in one room—that a breakthrough becoming stopped up causes a short circuit, according to your statement, and it goes back to that entry?

A. Yes, sir.

Q. Then if the air is coming from that point what supplies these rooms above here?

A. [Indicating on map] The air comes through this heading here; they drive in parallels and they drive off one room. This air comes up here and passes up to the last cross-cut in this heading. That is left open to conduct the air into this heading. We usually put a check there—a check between that room and this room; that forces the air into this room and it passes right down, and here it has got to go out and turn here; that makes it circuit.

Q. But it is cut off here from one of these rooms?

A. Yes, sir; you are talking about one of them being closed.

Q. Then the fall at one place, may include several rooms?

A. Yes, sir.

By Senator Kidd: Q. When the fire-boss finds one of those rooms with gas in it to such an extent that he regards it dangerous, and so marks it, does he go off and leave that? Is there any effort to get rid of that gas, or is it simply left in that abandoned room?

A. It is left there until he makes his return and is supposed to notify the man that has that particular place of the accumulation of gas and tell him how much there is of it. He should know whether that man is able to go in there and handle that or not.

Q. He don't leave it, then?

A. No, sir.

Q. But as soon as they can they set to work to dissipate it?

A. Yes, sir; to take it out.

Q. You say there are indications of its having started beyond where you were. What were those indications?

A. The condition the timber was in—the way it was lying, blown down; the roof that had fallen in and the presence of dust and deposits from the smoke.

Q. That force, then, set in motion, came through all these rooms in this direction and then rebounded?

A. Yes; as far as I came. I couldn't get any farther than up to that gas.

Q. Could you have come in this other direction? Was there gas this way, too, or did you try that?

A. No; the explosion was on this side.

Q. Away over in that far end in that direction, you didn't visit over there?

A. No; we came down this way, and back to the shaft.

Q. And then out?

A. And then out.

Q. That extended clear through yonder to the farthest parts of it?

A. As far back as I came this way.

Q. They have something they call "after-damp," what is that?

A. That is what is left after the gas explodes.

Q. If the gas explodes it takes all the vitality out of the air?

A. Yes, sir.

Q. And a man in that would not live as long as if he were under water, would he?

A. Hardly as long.

By Chairman Gartlan: Q. The duty of the fire-boss is to either mark the room dangerous or the day of the month?

A. The rule is to mark the day of the month to show that he was at the face of that working place. Then if it is dangerous, he marks it dangerous at the opening of the room. But he must have the date. As a rule, that is the way they require them to mark the date on the face, and if it is dangerous, then he puts the danger signal at the mouth of the room.

Q. Suppose a miner going in there did not find either the date or the danger signal—would he go to work in that room?

A. Well, some of them would.

Q. As a rule what do they do?

A. It would not be a rule. I know if I were to go in one and didn't find a mark I would come out.

Q. The point is, if the fire-boss has neglected his duty, would it be possible for all the men in the mine to work? Suppose he didn't go around, didn't examine the mine, didn't leave any marks—suppose he went down at 3 o'clock in the morning and didn't go any farther than the bottom of the shaft—would the miners go on working if they didn't find any danger signals or marks?

A. Some of them would; some of them would not; they would all go to the faces. The chances are they would all go to the working faces, and after they got to the working faces, and didn't find any evidence that the fire-boss had been there, some of them would leave and some of them would not.

By Attorney General May: Q. They all could go if they wanted to?

A. Oh, yes.

By Chairman Gartlan: Q. I wanted to know if it was possible for them all to go in there if the fire-boss hadn't been in there at all?

A. Yes; they could all go in. Some of them would stay and some would not, if they didn't find evidence of the fire-boss being there on that particular morning.

By Delegate Duty: Q. Is it the habit or custom among the miners to enter those abandoned rooms at any time for any purpose?

A. Yes; I have known them to go in and take out a prop; I have known them to go in and take out a rail; that is about the only thing.

Q. Do they frequently use those abandoned rooms for closets?

A. Yes; I was going to say that.

Q. Do they usually carry their lights when they are after these props or rails?

A. Yes, sir.

By Attorney General May: Q. You say when a miner puts off a shot he secretes himself to get away from the danger of the shot, and while he is doing this there may be an accumulation of gas from the shot and when he returns, if it is ignited, it would produce an explosion; I believe you stated that in response to Dr. Mitchell's question?

A. Yes, sir.

Q. Now, is it probable, or possible, either, that there could have been produced a sufficient amount of gas in this way, in any of those rooms, in one shot, to have produced the explosion as you saw it in this mine?

A. No, sir.

By Mr. Dillon: Q. In addition to marking on the face of the coal or entry to the room, it is the duty of the fire-boss to leave some mark at the foot of the shaft or at the entry of the mine, is it not?

A. Yes, sir; he is supposed to put up—we always call it a black-board, and each fire-boss comes out and marks his section on that board—either "O. K." or "Danger." That is supposed to be at the entrance to the mine where the men see it before they go in.

Q. So the miner would know before he went into the mine at all that the fire-boss had been in?

A. Yes; he would know that he had been down in the mine.

Q. Now, I believe you stated that in your opinion this was a gas explosion?

A. Yes, sir.

Q. Was it possible, if it were a gas explosion, to have been increased, or partly gas and partly dust?

A. Oh, yes; that is possible.

Q. Are you able to say that the explosion was all gas and that dust had nothing to do with it?

A. I arrived at that conclusion from the condition of the dust remaining. I didn't find anything that was charred, and where dust takes a part in an explosion you will usually find the charred dust on the sides and on the bottom; on ties you will find that charred, and if there is any dust left, it of course is underneath the charred part.

Q. If this fan had been running for four or five days after the explosion, and people were in there traversing it, would not that have destroyed part or at least some of the evidence of the dust explosion and made it somewhat difficult to have determined?

A. No; because there was too much—entirely too much surface there to be disturbed. You have both sides of your heading and you have the top of it and you have the bottom of it, and you can't disturb it all, so that you couldn't determine that unless you would sneak it out.

Q. You didn't attempt to traverse the east side of the mine, did you?

A. No, sir.

Q. Your object was an effort to get to the point where it is supposed the explosion originated?

A. Yes, sir.

Q. I believe you have stated that in your opinion, if the explosion took place from gas in a room that had been worked by a miner from the time he went to work up until the time the explosion took place, say at 1:20, that it would not have been possible for that to have happened if the fire boss had examined that room and not have discovered gas?

A. In my opinion not sufficient to cause an explosion that covered as much territory as this.

Q. If the miner went in there, and there was gas in it when he went in, and he had been working and shooting up until 1 o'clock, and there was sufficient gas to explode at 1 o'clock, would not his light or shooting have caught that gas and burned it before that time?

A. His light on his cap would have possibly have done that; he would not have had to shoot.

Q. Then how would you account for a man working until 1 o'clock in a room with sufficient gas in it to have made that explosion and his open light not have ignited it?

A. My report says that it is possible a door could have been left open and short circuited the air and brought down a quantity of gas from some other portion of the mine and this man fired it.

Q. A fall of slate creates a circulation of air, doesn't it?

A. Yes, sir.

Q. And it may also open up a gas feeder?

A. Yes, sir.

Q. A small quantity of gas which would make a small explosion, if it once started and would pass by an unventilated room that had gas in it, would it take that up as well?

A. It would have a tendency to draw it out. The rush of gas by the mouth of that room would have a tendency to draw it out.

Q. It is not the practice in this state, is it, where a portion of the mine has been abandoned work, for the fire bosses to examine that part of it?

A. Only occasionally; they don't make a rule of doing it every day, any place that I know of. In gaseous mines they keep, as a rule, a night man and a day man on that work. After the night men come out the day men go in and they take charge of looking after the ventilation, but that is in a mine where everybody knows it is gaseous and they use safety lamps.

Q. In an abandoned room that has an accumulation of gas in it, isn't there a constant leakage of the gas from that room, and would not the air going along and passing the entrance take out more or less of it all the time and prevent the room being full of gas?

A. That would depend altogether on the depth of the room as to how much would stay in there?

By Delegate Strickling: Q. In your report you say: "From my examination thereof I am satisfied of the following facts: First, that the Stuart mine was a well planned and laid out and properly worked mine of its type, supplied with all necessary machinery, including ventilating apparatus, and in every way was in excellent condition immediately prior to the explosion." Do you mean to say by this report that this mine, just prior to the explosion, was in excellent condition?

A. From the appearance of the destruction, what was left, what I could see, it certainly was or had been in very good condition.

Q. You saw, however, only a very small part of it?

A. Yes.

Q. You cannot state, of course, as to whether it was properly ventilated all through the mine just prior to the explosion?

A. No, sir.

Q. You base this opinion on the part of the mine that you explored?

A. Yes, sir.

By Delegate Mitchell: Q. What is the difference in the ante room, of the ceiling and the room?

A. I don't get your question.

Q. Is the room—the excavation—as great as in the entry or is the entry higher?

A. No; the entry as a rule is lower; they try to get them that way.

Q. The entry is lower?

A. Yes, sir.

Q. You excavate from the bottom?

A. Yes, sir.

Q. Then the ceiling remains about the same in the two?

A. Yes, sir.

Q. What was the depth of those rooms from the entries?

A. I didn't penetrate any rooms at all; I didn't get into the rooms at all; there were no rooms for me to get in up here; I was hunting for some of these rooms beyond.

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On motion of Mr. Kidd the committee adjourned until Friday, February 15, 1907, at 8 o'clock p. m.

#### FRIDAY, FEBRUARY 15, 1907.

The Committee met on Friday, February 15, 1907, at 8 o'clock p. m. at the Governor's reception room, pursuant to adjournment.

Present: Messrs. Gartlan (chairman), Duty, Mitchell, and Strickling.  
Hon. C. W. May, Attorney-General, on behalf of the State; and



Hon. C. W. Dillon, an behalf of the mine owners.

Absent: Mr. Kidd.

The meeting was called to order by Chairman Gartlan.

On motion of Mr. Duty, the Committee adjourned until Saturday, February 16, 1907, at 8:30 o'clock p. m.

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On February 16th, the following special report was submitted to both houses of the legislature:

### SPECIAL REPORT.

Your Committee, appointed in pursuance of House Concurrent Resolution No. 5 and House Joint Resolution No. 19, beg leave to submit the following:

On the 11th instant your Committee visited the scene of the disaster at the Stuart mine in Fayette county, and spent the day going over the premises in consultation with the owner of the mine as well as quite a number of persons employed in said mine. On the 13th and 14th they spent some considerable time in taking the evidence of numerous persons as to the cause of the explosion of said mine and other matters connected therewith.

Before visiting the scene of the explosion the committee undertook to employ experts on mining and mine ventilation, but was unable to secure the services of but one. This expert, on the 11th instant, undertook to go through the Stuart mine, but on account of the condition of the mine, was unable to explore but a very small portion of the same; and while we have taken his testimony it is necessarily indefinite, and has not, on account of his inability to go through the mine, afforded the Committee the information necessary to report intelligently to the Legislature within the time prescribed by the resolution authorizing our appointment.

Your Committee has been unable to visit the scene of the Thomas mine explosion, or to get any one to do so. Hence, we believe it to be impossible to report by the 18th day of the present month intelligently to the legislature, so that any legislation could be had upon the subject; and for this reason the committee would recommend that its power be enlarged so that it may sit in vacation and complete the investigation that it has only been so far able to start.

Respectfully submitted,

THOMAS GARTLAN.  
*Chairman.*

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On the same day the foregoing special report was submitted, the following joint resolution was adopted by both houses of the legislature:

### SENATE JOINT RESOLUTION NO. 22.

Authorizing the Special Joint Committee of the Senate and House of Delegates, raised by authority of House Concurrent Resolution No. 5

and House Joint Resolution No. 19, to sit in vacation, and perform the duties required of it in the resolutions authorizing its appointment.

WHEREAS, the Committee appointed in pursuance of House Concurrent Resolution No. 5 and House Joint Resolution No. 19 has this day reported to the legislature that it is impossible for them to make the investigation required in said resolutions and make report thereon by the 18th day of February; and,

WHEREAS, in said report said committee states that it will be impossible during the present session of the legislature to make such investigation as will be of material benefit in the way of legislation on the subject of mine disasters; therefore be it

*Resolved by the Legislature of West Virginia:*

That the said committee be and it is hereby authorized to sit in vacation and perform the duties required of it in the resolution authorizing its appointment. The said committee shall have the power to send for persons and papers, to administer oaths, to employ such clerical assistance as may be necessary in the discharge of its duties, and to do all other things that may be necessary in ascertaining the information required of it in the said resolutions authorizing its appointment.

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SATURDAY, FEBRUARY 16th, 1907.

The committee met on Saturday, February 16th, 1907, at 8:30 p. m. at the Governor's reception room, pursuant to adjournment.

Present: Messrs. Gartlan (chairman), Duty, Mitchell, Kidd and Strickling.

Hon. C. W. May, Attorney-General.

Hon. C. W. Dillon.

The meeting was called to order by Chairman Gartlan.

Senator Littlepage appeared before the committee and asked permission to send for an expert, recommended by John Mitchell, President of the United Mine Workers, to accompany the committee under the authority given them by a former resolution, allowing the employment of experts, which permission was granted.\*

On motion of Mr. Kidd, the committee adjourned to meet at some future date, to be designated by the chairman.

Parkersburg, West Virginia.

April 1st, 1907.

The Committee met pursuant to a call issued by the chairman, and there were present Messrs. Gartlan, Kidd, Duty and Mitchell, constituting a quorum.

Absent: Mr. Strickling.

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\*Subsequently Mr. Andrew Roy reported to the chairman as the expert so recommended. He went to the Stuart mine on two occasions and found the mine not yet in condition to be examined. A record of his services, in detail, will be found in his testimony which appears in another portion of this record.

The chairman reported that Andrew Roy, mining expert, had asked fifty dollars a day and expenses for his services with the committee, which amount the committee decided was too great, and the chairman was instructed to write Mr. Roy and offer him ten dollars per day and his expenses.

There being no further business before the committee it was agreed that a meeting should be held at Clarksburg on the 29th day of April, 1907, for the purpose of examining some of the mines in that section of the State, and on motion an adjournment was taken until that date.

Subsequently—and after the chairman had communicated by letter with the various members of the committee—it was agreed to change the date of the Clarksburg meeting from April 29th to May 6th, which was accordingly done.

# WHIPPLE MINE EXPLOSION.

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## FAYETTE COUNTY.

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MAY 1st, 1907.

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Together with report of itinerary through Fayette and Raleigh counties, including testimony adduced and proceedings had before the Committee.

Charleston, West Virginia,

May 6th, 1907.

Information having been received of an explosion that occurred on May 1st, at the Whipple Mine, in the White Oak coal field of Fayette county, attended by a considerable loss of life, the chairman issued a call for the committee to meet at Charleston instead of at Clarksburg, on this day, at which time there were present Messrs. Gartlan, Kidd, Duty and Strickling. It was decided to visit the scene of the disaster at the earliest practicable moment; but Delegate Mitchell having been unavoidably delayed, and having reported by wire that he could reach Charleston on tomorrow (Tuesday) evening, on motion an adjournment was taken until Wednesday morning next at 8 o'clock.

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MAY 8th, 1907.

The committee met pursuant to the adjournment of May 6th, and all the members were present, together with Assistant Attorney General D. E. Matthews, and Mr. John Nugent, mine expert.

On motion of Senator Kidd, Mr. John T. Harris was elected Secretary of the committee at the rate of eight dollars per day and expenses, and Mr. John Marshall was elected Sergeant-at-Arms at the rate of five dollars per day and expenses.

The committee left Charleston at 8 o'clock a. m., over the Chesapeake & Ohio Railway, arriving at Thurmond about noon. After dinner they boarded a special car furnished them by the railroad company and took the Loup Creek Branch to the Whipple mine in the White Oak coal field and arrived there late in the afternoon. They were joined at the tippie by Chief Mine Inspector James W. Paul and District Mine In-

spector Earl Henry who had just come out of the mine. After the committee had made an examination of the outside equipment they returned to Prudence for the night, stopping at the company's store and taking a price list of some of the staple goods sold there, which list will appear subsequently in this report.

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MAY 9th, 1907.

Left Prudence at 7:30 a. m. and went up the Macdonald Branch of the Chesapeake & Ohio Railway; thence to the Price Hill shaft, where the equipment was examined. Returning, stopped at the Kilsyth mine and viewed the outside of the mine and equipment. Thence the journey was continued to the Stuart mine, where the following persons descended the shaft: Messrs. Paul, Henry, Pinkney, Nugent, Strickling, Mitchell and Matthews. The party remained in the shaft twenty minutes and noted repairs to pumping fixtures and air stoppings. An additional air shaft was under work of excavation here and one was reported as being excavated at the Parral mine.

At 2 o'clock p. m. the committee returned to the Whipple Mine where the following testimony was taken:

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JAMES CLARK, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of James Clark.

Examination by Senator Kidd:

Q. What is your age and occupation?

A. I am fifty-six years of age; mining engineer.

Q. Where are you employed at the present time?

A. At the Whipple mine.

Q. In what capacity?

A. As superintendent.

Q. How long have you been connected with this mine in that capacity?

A. Eighteen months and past.

Q. Were you present at the mine or in the same at the time of the recent explosion, which took place, I believe, on the first day of May, 1907.

A. I was not in the mine, but I was preparing to go down at the time the accident happened.

Q. Please give us the number of men employed at the time of the explosion?

A. It is not giving it exactly but we had ninety-four men down in the mine, as nearly as I can make out, and there were about twenty-three or twenty-four came up before the explosion, which left about seventy in the mine.

Q. How many lives were lost?

A. Fourteen in the mine and one man died since.

Q. Give us as nearly as you can the cause and extent of that explosion?

A. The explosion started in the first right entry, on what is called the Thurmond coal, or main return as it is called. The explosion started in that heading and traveled right out toward the shaft. It spread about 700 feet to the North and about 300 or 400 feet to the South, off of the direct line of the shaft.

Q. Give the cause of the death of the fifteen men who lost their lives.

A. The two men who were found in the heading were burned and I expect they died from burns; the others died from damp.

Q. State what caused the explosion, if you know.

A. I do not know for certain but I consider that it was the excessive use of a high explosive.

Q. Have you allowed solid shooting in this mine?

A. No, sir; we have notices up, and have had for sometime, that there was to be no solid shooting in the mine.

Q. How long had these two parties who were burned to death and who were, as you say, the cause of the explosion, been employed by the company for which you are the superintendent?

A. They were employed by the company two or three times since I have been here; this last time one of them—Charles Burgess—was only in the employ of the company about a week.

Q. What do you mean when you say thirteen of these men were killed by the damp?

A. Well, I did not say thirteen; I said two were killed at the face, by the explosion, twelve by the damp, and that one died outside, after the explosion.

Q. State what you mean by "damp?"

A. Foul air.

Q. Does that usually follow an explosion of this character?

A. Yes, sir; invariably.

Q. Could the twelve men who were killed by the damp have saved themselves by due diligence or by exercising proper judgment?

A. Yes, sir; if they had come out against the air instead of coming the way the air was traveling they would have gotten out all right.

Q. Did the other men who were employed in the mine at the time of the explosion come out themselves, or was it necessary to bring them out?

A. They all came out themselves, I think, to the bottom of the shaft, so far as I know.

Q. Had you any other way of getting in and out of this shaft except the way the coal is brought out?

A. Yes, sir; we have an escape ladder-way in the air shaft.

Q. How far is that away from the main entrance?

A. I could not say exactly; I should think it is about two hundred feet.

Q. What experience have you had in the mining business?

A. I have been a mining engineer and a mine manager since 1871.

Q. How long have you lived in America?

A. Three years and a half.

Q. In what other countries have you followed this occupation?

A. In Britain.

Q. Were all proper safeguards thrown around the men who worked in this mine, to protect them from danger?

A. Yes, sir; every known safeguard was used.

Q. How was the air injected into that mine?

A. It was blown in by a Clifford-Capelle fan, 15x7 feet wide.

Q. In sufficient quantities, was it?

A. Yes, sir; in sufficient quantities?

Q. How much air did that fan put into that mine?

A. It was producing from eighty-four to eighty-six thousand feet of wind per minute.

Q. How soon after this explosion were you down in the mine?

A. About twenty-five or thirty minutes, I think.

Q. What was the condition of the mine when you reached it, as to air?

A. When I reached the bottom of the mine the air was all right. I went down to the bottom of the ladder in the air shaft and found some men working there to get up those who were in the bottom.

Q. Had the two men who caused this explosion asked permission to put in solid shots or to use this high explosive?

A. They never asked it from me or any one that I know of.

Q. Have you permitted the use of dynamite in these mines?

A. Yes, sir.

Q. Do you regulate and direct how it shall be used.

A. The bank boss does that.

Q. Who is your bank boss?

A. Isaac Pelter.

Q. Is he alive or is he dead?

A. He is alive and here, sir.

Q. What quantity of dynamite do you allow used at one time?

A. That would depend upon what we were doing; that would depend upon the nature of the work.

Q. In the mining of the coal itself?

A. We do not use dynamite in mining coal; it is soft powder we use in the mining of the coal.

Q. Well, had you given any directions to the men in case of an explosion how to escape, with safety to the men?

A. We gave them directions to the shaft and they all knew the way to it, of course.

Q. Had you given any directions as to going into the damp when it should occur, or going against it?

A. No, sir; I do not expect there would be any directions as to that, especially to men accustomed to practical mine work.

Q. Do you know what experience in such business the men in the mines at that time had had?

A. Some of them had had a good deal of experience and some of them hadn't had very much.

Q. Then there were no instructions given to the men who were put in there, how to escape with safety in the event of an explosion and evade running into the damp, was there?

A. No; I do not think there were any directions of that kind, that I know of.

Q. What would an ordinary man working in the mine know about it?

A. There were none of those men working in that mine without experienced men being with them.

Q. The twelve men who lost their lives by suffocation, or whatever you may call it—were they men experienced in mining?

A. All but two of them.

Q. Were some of them of large and extensive experience?

A. Yes, sir; some of them had a lifetime's experience.

Q. Do you know the location of the twelve men who so lost their lives at the time of this explosion, as to whether they were in their proper places at work?

A. Yes, sir; I know where they should have been.

Q. Could they have escaped from where they were at work?

A. Yes, sir.

Q. Please detail what the two men who caused this explosion were doing at the time?

A. They were driving heading and cutting what we call a "roll"—a "roll" of slate in the coal.

Q. What time in the day did this occur?

A. As near as I can tell you I think it was about a quarter or twenty minutes past 3 o'clock.

Q. How long had they been at work getting that slate out?

A. Just that one day, in that place.

Q. Where was the fire boss at the time of this explosion?

A. At home.

Q. When does he go in the mine?

A. He goes in the mine about 3 o'clock in the morning.

Q. What time does he come out?

A. About 1 o'clock in the afternoon.

Q. And what are his duties?

A. His duties are to go around the mine in the morning to see that the mine is all clear of gas, and all in safe order, and to come to the top of the shaft and give a report for the men to go down.

Q. Had he been down on the morning of this explosion?

A. Yes, sir; he had.

Q. And made his report?

A. And made his report.

Q. Were any of the rooms reported as unsafe?

A. No, sir.

Q. At any time recently before this explosion had any of the rooms been marked as unsafe on account of gas?

A. No, sir.

Q. Had you theretofore had any trouble with gas in this mine?

A. They had never had any trouble with gas in this mine since I came to it.

Q. Was the dust permitted to accumulate in a dry manner and in large quantities in this mine?

A. We sprinkled the dust.

Q. What was the condition of the dust on the day of this explosion?

A. It was just the same as usual.

Q. Do you give any personal attention to the dust that accumulates or do you have a man who looks after that especially?

A. I look to it sometimes myself and give instructions to have it watered.

Q. Please state upon what you base your opinion that this explosion was caused by laborers in this mine, or to any act of their own?

A. All I stated was that I thought it was from the excessive use of high explosives.

Q. And upon what do you base that opinion?

A. I base that opinion upon what I have heard of and seen before and the condition of the place.

Q. State what that condition was?

A. When we went up we found they had fired three shots in the solid—in the face of the coal—right below the "roll" or under the "roll."

Q. What was the thickness of this coal under that "roll?"

A. I did not measure it but I think it is about thirty-two inches; then there are seventeen inches of slate or rock and six inches of top-coal.

Q. What was the object of going through that? Was it to reach the coal beyond?

A. Yes, sir.

Q. Had you examined it and directed them how to remove that coal and slate or rock?

A. Yes, sir; we directed them to undercut it with the machine.

Q. Did they fail to do so?

A. Yes, sir; evidently.

Q. Were those two men you have mentioned men of experience in mining?

A. I do not know the extent of their experience but they have both been here more or less since I came here, or nearly all the time. I understand this man Burgess, who was a leader, was considered a good, sound, practical miner.

Q. What was this high explosive that was used?

A. Dynamite.

Q. Was this one of the occasions on which they were permitted to use dynamite?

A. No; they should have used powder, I think, this time.

Q. Do you know where they got this dynamite that day?

A. I expect they would get it from the bank boss, but I do not know.

By Mr. Nugent: Q. They were day men, weren't they?

A. They were working on day at the time.

Q. They would have access to the explosive by requesting the mine boss? If they went to the mine boss he would know whether shooting in the coal or rock would be expected or would be regular, would he not?

A. I expect so; yes, sir.

By Senator Kidd: Q. Was there ever an explosion in this mine before this explosion of May 1st?

A. Not since I came here.

By Mr. Nugent: Q. They had been using dynamite in that entry before?

A. Not that entry but the other entry; but in there they were shooting down slate with dynamite—these two men.

By Senator Kidd: Q. Have you had any trouble in keeping men from making these solid shots?

A. Yes, sir; we have had to speak to different ones about it and we have threatened to put them out of the mine several times.

Q. Do all your men work by the day or ton?



A. No, sir; our coal diggers all work by the car.

Q. Does it often happen that these men want to get results without much work and for that reason want to put in solid shots?

A. If the coal gets hard they sometimes do that if they are not watched.

Q. Do you direct the bank boss and others to keep proper watch of the men?

A. Yes, sir; and we have put up notices, too, directing the bank boss and others not to allow them to do it.

Q. And you keep an eye over them, too, do you?

A. Yes, sir; every time I see a thing of that kind likely to happen I put a stop to it at once.

Q. Have you inaugurated the system of having shot inspectors, or men to shoot?

A. Yes, sir; we have started with it.

Q. And that is in operation now?

A. That is in operation now.

Q. How many inspectors have you for that?

A. I have only one, yet, because we have no use for more than that, but we will employ more as we require them.

Q. Is any shot made in that mine without inspection or direction?

A. No; there have been no shots fired since the accident and we will see to it that none will be fired without the inspector.

Q. The inspector you have appointed is a competent and experienced man in that business, is he?

A. Yes, sir; he is a competent and experienced miner.

Q. And it is the intention of this company to see that these shots are not made by ordinary men in that work?

A. Yes, sir.

Q. And at present you are carrying out the system inaugurated?

A. Yes, sir; we are beginning with it.

Q. I will ask you, Mr. Clark about the social condition of the men: Are they required to purchase at the company's stores, or anything of that kind?

A. No, sir.

Q. Do you have any complaint from your men that they are not properly treated along that line?

A. No, sir; there have never been any complaints come to me.

Q. There is no requirement of that then—that they shall deal with the company in the stores or otherwise?

A. There is no compulsion.

Q. And they are at perfect liberty to purchase wherever they may desire to do so?

A. Yes, sir; as far as I know.

Q. What rents are charged these men working in the mines, by the company?

A. Different amounts, according to the size of the house and the number of rooms—five, six, seven and eight dollars a month—and we have one building a little more than that.

Q. How often are the men paid?

A. Once a month.

Q. How are they paid—in cash or by checks?

A. They are paid in cash.

Q. Is credit extended to them in the stores of the company during the month?

A. I do not just understand that question.

Q. I mean do they go to the stores at any time—whether they have money or not—and buy goods—get credit there?

A. They go to the office and get scrip and buy.

Q. In the use of that scrip do they buy goods as cheaply as they would with the cash?

A. I understand so—that there is no difference.

Q. You have never heard any complaint about anything of that kind?

A. I have never heard any complaint of anything of that kind.

Q. Are these men allowed to complain of any grievances, or are any restrictions put upon them about complaining?

A. I do not know of any.

Q. And no compulsion is used?

A. No compulsion; and they are quite at liberty to come and state their grievances at any time.

Q. And they receive a respectful hearing, do they?

A. Yes, sir; and I think the men will tell you that.

Q. This advance scrip they give; is there anything charged for that in the way of interest or otherwise?

A. Not that I know of; oh, no.

Q. That is given upon the basis of actual work done up to that time in the month is it?

A. Yes, sir.

Q. Upon what does this basis of prices for rent of from four to eight dollars depend?

A. Upon the size of the house.

Q. It means the size of the house and the number of rooms?

A. The rent depends upon the size of the house and the number of rooms.

Q. And no favoritism is shown any of the men?

A. No, sir; none that I know of.

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F. W. SCARBOROUGH, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of F. W. Scarborough.

Examination by Senator Kidd:

Q. State your name, age and occupation?

A. F. W. Scarborough; age forty-one; general superintendent.

Q. Do you mean you are general superintendent of the Whipple mine?

A. Of all these mines. The Whipple mine is one of the mines of which I am general superintendent.

Q. Give the name of the company and the number of mines that you have under your supervision?

A. The Oak White Fuel Company, and mines under the control of the New River Company—twenty-three mines.

Q. How much, if any time have you spent at the Whipple mine lately?

A. I was through the Whipple mine I think about one month ago. I spent six or seven hours in the mine.

Q. You were not here on the day of the explosion, were you?

A. No, sir; but I was here a little after the explosion.

Q. Will you state the method your company employs in the paying of its men and the renting of its houses, and whether or not the men are allowed to complain of their grievances, or is there any restriction or compulsion used?

A. There is no restriction or compulsion used with regard to dealing in the stores. We rent all the houses and the rents are based, taking a 3-room house as a basis. A 3-room house is rented at five dollars per month; and it is then one dollar a room above that. A 4-room house is six dollars a month; a 5-room house is seven dollars a month, etc. Every man is charged the same, in accordance with the size of the house he gets.

Q. And a man is not restricted—[interrupted]—

A. No; a man may rent any kind of a house. We try, though, to divide the colored people from the whites, but the houses are of the same general quality in the two parts of the town.

Q. Well, now, is the miner given to understand that he must deal at the company's stores?

A. No, sir; he is not.

Q. Is he left absolutely free to deal where he pleases?

A. He is left absolutely free.

Q. How often is he paid?

A. Once a month.

Q. Now, this scrip that is given him for work along during the month; is anything charged for that or is it just an accommodation?

A. No, sir; it is an accommodation, and we still go farther than that accommodation; we cash the scrip that is dealt with the saloons during the month, at par, and we require the saloon-keepers to give the men the same consideration as cash.

Q. When you give them this scrip they are required to use it only in your stores?

A. We require it to be used in our stores with the exception that a man can go and get a drink, or dram, and we issue it dollar for dollar.

Q. How many men are employed in the twenty-three mines under your supervision, at the present time, if you recollect?

A. I cannot tell you that, but we mine about 185,000 tons a month.

Q. What has been the relation in number between the whites and blacks in this mine, for the last few months?

A. I could not tell you.

Q. Are these miners foreigners or American citizens?

A. They are all kinds; there are foreigners—Slavish, Polish, English and Irish—and Americans.

Q. Taking this mine as the basis of your mines, about what would an ordinarily good miner earn in a month if you were running regularly?

A. He would earn from eighty-five to one hundred and five dollars a month.

Q. He works at so much a car, does he?

A. So much a car.

Q. And how much coal is loaded on one of those cars?

A. The cars are loaded a ton and a half.

Q. He is given fair measurement in that, is he?

A. Yes, sir.

Q. What do you pay a car in these shaft mines?

A. Sixty cents, here.

Q. Do they pay the same in drift mines?

A. Yes, sir; that is the price we pay all through the New River field—on the Loop Creek Division of it.

ISAAC PELTER, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Isaac Pelter.

Examination by Senator Kidd:

Q. Please state your age and occupation?

A. Age thirty-six; mine foreman.

Q. At what mine?

A. At the Whipple mine, sir.

Q. State how long you have been employed in that capacity at the Whipple mine?

A. About nine months.

Q. How long have you been engaged in mining operations?

A. Well, sir, I went in a mine when I was eleven years old.

Q. Of what nationality are you?

A. English.

Q. How long have you been in America?

A. Six years the present month.

Q. How long had you worked in mines in England before coming here?

A. I followed it up, sir, from the time I first went to work.

Q. The mines there are shaft mines, are they not?

A. Yes, sir; they are regular shaft mines. I started in a mine where there was half time. Half of the time I was in school and half of the time in the mine.

Q. Where have you worked since you came to America, and until you got to be mine boss here?

A. The first mine I worked at was the Derryhale, on Loop Creek, and then I went to Scarbrough No. 1 and into Carlisle No. 2—all shaft mines except the Derryhale.

Q. There have been no requirements that you should deal at the company's store?

A. Four years.

Q. What is the treatment of their men?

A. Pretty good treatment, sir.

Q. Are any requirements made of them where they shall buy, or anything of that kind?

A. No, sir; the men at work here deal where they have a mind to.

Q. So you are at liberty to deal wherever you wish?

A. Yes, sir.

Q. Are you compelled, or are the miners compelled to live in houses owned by the company?

A. Half of our people live outside.

Q. Do they pay as high rent for houses outside as the company rents its houses to the men for?

A. I could not tell you about that.

Q. Were you in the Whipple mine at the time of the explosion?

A. Yes, sir.

Q. How far from where the explosion took place?

A. About eighteen hundred or two thousand feet.

Q. Did you hear the explosion?

A. No, sir.

Q. How soon did you know it had occurred?

A. Well, when it went off there was a buzzing went through my ears. I was talking to two men at the time and it put their lights out, but didn't mine. I thought a big pillar had fallen in and I went back to see, but it had not fallen.

Q. Then what did you do?

A. I came toward the shaft.

Q. How close did you get to the shaft?

A. I came right to the shaft.

Q. In coming to the shaft did you come with the wind or against it?

A. I came with the wind towards the shaft.

Q. How close to it did you come with the wind?

A. About 500 feet.

Q. Did you feel any of the effects of the damp?

A. Yes, sir.

Q. You were not overcome by it?

A. No, sir.

Q. How soon after that did you come out of the mine and by what means?

A. I staid in there until I got all the men out. I knew we had men alive in there and I staid until I got them all out. It was 12 o'clock at night when I got out.

Q. You were not out from the time of the explosion until about 12 o'clock at night?

A. No, sir.

Q. What time did you remove the bodies of the dead men from the mine?

A. Well, of course I went to them after that, and they were removed sometime between that and the time I went back again.

Q. Now, when you went to the mouth of the shaft did you find these dead bodies at that time?

A. Not when I first went.

Q. What time did you first do after you reached the mouth of the shaft?

A. I went and got a safety lamp and started to brattice. That is a canvas they put in cross-cuts to cover up the opening and force the air through the entries.

Q. Who had you with you in this work?

A. Mr. Joe Longstaff.

Q. Well, now, on that day had you observed anything that indicated any danger in that mine?

A. Not one single thing, sir.

Q. At what time in the morning did you go down?

A. At 7 o'clock.

Q. Did you know the two men who were working in the place where this explosion occurred?

A. Yes, sir.

- Q. Had you been to them on that day?
- A. No, sir; they had just went there to that place—had started off to go to that place—and they were going over there right from the shaft.
- Q. Did you send them there to do any particular kind of work?
- A. Yes, sir.
- Q. And in sending them did you direct them what to do and how to do it?
- A. Yes, sir.
- Q. Did you furnish them with dynamite or other explosives?
- A. They got the dynamite. The box was open and they got the dynamite at the time I was away from the shaft.
- Q. They did not ask you, then, for the dynamite?
- A. No; and I could not say how much they had; they didn't ask for it.
- Q. Do you know what caused this explosion?
- A. The only thing I know of it is from this solid shooting, sir.
- Q. Have you been having much solid shooting in this mine?
- A. Well, we have had, but we watch them pretty carefully.
- Q. Is any done under your directions?
- A. No, sir.
- Q. Have you a rule prohibiting or forbidding this solid shooting?
- A. Yes, sir; we have plain rules.
- Q. How long have you had such rules?
- A. Well, we may have had them three months, or something like that.
- Q. What punishment do you inflict upon a miner for a violation of those rules?
- A. Well, the law says they shall be discharged and prosecuted.
- Q. Have you done that?
- A. Well, we haven't done it; of course we have been watching them pretty closely.
- Q. Have the men been informed that the penalty of the law would be enforced upon them for a violation of those rules or of the law?
- A. They all knew it, sir.
- Q. Have you had any explosion in this mine since you have been in it, before this one?
- A. No, sir.
- Q. Have you had any trouble with gas?
- A. No, sir; not the least bit.
- Q. Have any of the rooms been marked as dangerous on account of the appearance of gas in them?
- A. Not one place has been marked off at all.
- Q. Who is the mine inspector that comes here representing the State and to inspect the mine?
- A. Mr. Absalom sometimes comes, and sometimes Mr. Pinkney.
- Q. When had this mine been inspected by the State authorities last?
- A. I would not like to say exactly. It has not been very long ago since an inspector was here.
- Q. Who was that inspector?
- A. Absalom has been doing it and Pinkney has been doing it a few times.
- Q. Then Absalom was the last man sent by the State. Did he report or state that he had given you any directions that had not been lived up to?
- A. No, sir; he found everything clear.
- Q. Had the two men who fired this solid shot followed the instructions that you had given them?
- A. No, sir.
- Q. Now, you say you came with the air. Can you tell why these other men were overcome and you were not?
- A. They may have got there before I did and the air would be better when I got there.
- Q. It had begun to clear away?
- A. Yes, sir; that might be it. I came part of the way the same way these fellows did.
- Q. And after you had come within 500 feet what made you change your course to get to the mouth of the shaft, if you did change it?
- A. Because it was too strong in one place—the bad air.

- Q. You found the air too bad to further continue on with the air?
- A. Yes, sir.
- Q. And then the balance of the way was against the current?
- A. No, sir; it was with the current until I got near the shaft; then I came off into another entry where the air was better.
- Q. Have you had any experience in mines where there was much gas?
- A. Not where there was a great deal; I have never seen a great deal of gas.
- Q. Well, was there as much in this as in other mines where you have worked?
- A. We had nothing here, sir.
- Q. So you have had no difficulty at any time with gas in this mine?
- A. No difficulty whatever.
- Q. What kind of an explosion was this—dust or gas?
- A. It could not have been gas when there wasn't any gas there?
- Q. Then would you say it was a dust explosion?
- A. Well, it must have been caused by this heavy shooting?
- Q. That caused the dust to explode, do you mean?
- A. Well, if it was a dust explosion it was by this heavy shooting—if it had been dust. I would not like to say it was not the cause, but if it was it was caused by this excessively hard shooting.
- Q. Well, that kind of shooting would cause a gas or dust explosion if gas or dust were there, wouldn't it?
- A. If gas were there it would cause an explosion; likewise, dust; but we had been keeping the dust pretty well watered.
- Q. You say you had kept it well sprinkled?
- A. Yes, sir.
- Q. I want to ask you if the use of machinery creates more dust than the ordinary way of pick mining?
- A. Yes, sir.
- Q. About how much more?
- A. Well, a good lot more.
- Q. A great deal more, does it not?
- A. Yes, sir.
- Q. And therefore the necessity for heavy sprinkling where you use machinery?
- A. Of course in a dark place it always does good; but we never had any machines up there until that day and the men didn't use them. I sent them up. And there is where they went against my instructions about the machines; they never used the machines.
- Q. You have supervision of all the men in this mine?
- A. Yes, sir.
- Q. How do you spend your time in the mine when the men are at work?
- A. Just going from one place to another.
- Q. In doing that would you visit the same place more than once in a day?
- A. Sometimes I do.
- Q. But it takes quite a while to give each one a visit?
- A. You see it is a good, big mine and it is from one place to another. Sometimes I go twice to one place and sometimes three times.
- Q. If you anticipate any disobedience, or anything of that kind, do you go back and keep an eye on the men?
- A. Yes, sir; I generally do.
- Q. I take it you always have men, in a mine like that, that you can rely upon without watching, haven't you?
- A. Yes, sir; I ought to have.
- Q. What method do you use in sprinkling this mine?
- A. We have a water-box with a pipe on it, like a street sprinkler.
- Q. Had the mine been sprinkled on the day of this explosion?
- A. Not on that day, sir.
- Q. How soon before that time?
- A. Well, it was a week ago. We sprinkle each one of these places whenever they get a little dry.
- Q. Was once a week often enough to sprinkle?
- A. Yes, sir.
- Q. Does shooting this coal with high explosives create dust?

A. Yes, sir; shooting on the solid creates dust.

Q. Much or little?

A. Yes, sir; a good bit.

Q. How long before this day had this particular place, where they were, been worked—in that heading or whatever you call it?

A. Not for one month, sir.

Q. Had you been in there within that month?

A. I was in there the day before.

Q. You went in there, did you, for the purpose of ascertaining what was necessary to be done to get through to the coal beyond?

A. I went there to see what was necessary to be done and to give them instructions.

Q. Did you find any dry dust in there the day before?

A. None to speak of.

Q. Did they do any work on the day before when you told them what to do?

A. Not on that entry.

Q. What were they doing on the day of the explosion before 1 o'clock?

A. They were working in another part of the mine on slate.

Q. And then did they go back to this place by your instructions?

A. Yes, sir.

Q. Now, I will ask you, if a man waits until the end of the month and gets his pay, can he purchase goods for his family and for his own use wherever he wishes to?

A. Yes, sir.

Q. If scrip is furnished you during the month for part of the month's pay, for the purpose of buying the necessities of life at the store, is any higher price charged your men than there is for cash?

A. Not a bit, as I know of, sir.

Q. Have you used both?

A. Yes, sir.

Q. Is anything charged for the use of the scrip, directly or indirectly?

A. No, sir.

Q. It is done to accommodate the men?

A. Yes, sir.

Q. And upon actual work done up until that time?

A. Yes, sir.

Q. Would the scrip be redeemed at any store or just at the saloons and company stores?

A. Well, it is just at the saloons and company stores. Where they issue scrip, you can get the scrip at this store here and then go down to No 1, Carlisle, or any other store of the same company.

Q. Any other store of the same company honors the scrip, does it?

A. Yes, sir; at this store we can get scrip to any store belonging to the company.

Q. Suppose you would get scrip representing half a month's pay, could you assign that to me, and could I get my pay on it, and if so, how?

A. I never tried that, sir.

Q. If you get scrip could you hold it to the end of the month, and then if they paid you in cash for the full month would they take up the scrip?

A. I do not know, sir; I never tried that.

Q. When you tried it you did it for immediate use and used it, did you?

A. Yes, sir.

Q. Do you know of any advantage in that way that the company tries to take of its men?

A. No, sir.

Q. Does the company at any time advance scrip to men, in advance of wages, when there is nothing due the men?

A. Yes, sir; they do; I have known of several cases.

Q. And with that you can buy as cheaply at the store as you can with the cash?

A. Yes, sir.

By Delegate Mitchell: Q. Were you ever overcome by gas?

A. Not in this mine, no, sir.

- Q. Have you ever been overcome by gas?  
 A. No, sir.  
 Q. How did you feel the effect of this gas—this choke damp?  
 A. I felt like going to sleep at one time; I was not overcome, though.  
 Q. Did your lamp go out?  
 A. No, sir.

JAMES DILLON, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of James Dillon.

Examination by Senator Kidd:

- Q. Give us your age, residence and occupation?  
 A. Sixty-seven; Whipple; miner.  
 Q. How long have you been engaged in mining?  
 A. About sixty years.  
 Q. Where?  
 A. All over the world.  
 Q. How long have you been in this country, engaged in mining?  
 A. About five years.  
 Q. Where did you come from when you came here?  
 A. New York.  
 Q. How long have you been at the Whipple mine?  
 A. Seventeen months this last time.  
 Q. Were you in the mine on the day of the explosion?  
 A. No, sir; I was at home in bed.  
 Q. How long had you been out of the mine?  
 A. About four hours. I had worked the previous night up until 12 o'clock.  
 Q. You were not out, then, because of any anticipated trouble?  
 A. Not at all, sir; I expected to go back that night.  
 Q. Have you at any time observed the existence of gas in this mine?  
 A. Not at all, sir; I have never seen gas in this Whipple mine.  
 Q. Have there been any explosions or anything of that kind since you have been here?  
 A. Not any, sir; not until this last occasion.  
 Q. How do you mine—by the day or by the car?  
 A. By the car.  
 Q. What do you get a car?  
 A. Sixty cents.  
 Q. How many do you aim to get out in a day?  
 A. Eight, nine or ten.  
 Q. I will ask you to state what has been the treatment of this company to its men in the mines?  
 A. Well, as far as I could see, Senator, the treatment is first-class, and individually, myself, beyond first-class.  
 Q. They have paid you promptly?  
 A. They have overpaid me.  
 Q. And haven't required you to buy at their stores or anything of that kind?  
 A. No, sir; there is no compulsion at all.  
 Q. And when you have purchased at the company's stores have you been required to pay higher prices than you could buy the same goods for at other stores?  
 A. Not to my knowledge, sir.  
 Q. They keep a general line of merchandise?  
 A. Yes, sir.  
 Q. Pretty nearly everything, I suppose, that you require?  
 A. Yes, sir.  
 Q. Have you at any time had scrip advanced you?  
 A. Nothing else since I have been here, only on about three occasions.



- Q. Well, in the use of that did you buy as cheaply as you would with cash?
- A. Just the same.
- Q. You mean you do not wait until the end of the month until you are paid?
- A. No; they won't let me wait; they give me my wages in advance.
- Q. And you have no trouble with them?
- A. Not at all.
- Q. And no occasion to complain?
- A. None at all.
- Q. Have you observed upon the part of the other miners, in the discharge of their duties, any occasion to complain of their treatment?
- A. Not to amount to anything.
- Q. You mingle with the boys, do you?
- A. Yes, sir; I have been amongst them frequently—in fact, all the time.
- Q. If there were any grievances, were you free to complain about them or were you forbidden to complain?
- A. I generally complain, sir, and then I get discharged; but I have had no room to complain here yet.
- Q. You do not know the cause of this explosion, do you?
- A. I was on ventilation about a month, sir, and I could not find out any cause at all except it was a fire explosion by this overcharge of powder by this experienced man, Burgess, because we have never had any gas, at all, and I have traveled the mine all over.
- Q. Are you forbidden to make solid shots?
- A. Yes, sir; there is notice to that effect and we have been cautioned not to fire solid shots.
- Q. Have you been to the place where this explosion occurred?
- A. Yes, sir.
- Q. Can you say what caused it?
- A. A practical miner could see that it was caused by an over supply of powder and they shot it in the solid.
- Q. Did I understand you to say you had never seen any gas in this mine?
- A. I never saw any.

JOSEPH LONGSTAFF, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Joseph Longstaff.

Examination by Judge Matthews:

- Q. How long have you lived in this country?
- A. About three years.
- Q. Where are you working at the present time?
- A. At the Whipple mine.
- Q. You are a coal miner?
- A. Yes, sir; I have been a coal miner for the last eleven years—one year in Britain and the rest of my life in Australia.
- Q. You say you are working at the present time in the Whipple mine?
- A. Yes, sir.
- Q. How long have you been working in this mine?
- A. Thirteen months.
- Q. Were you in this mine when the explosion occurred on the first of May?
- A. Yes, sir; with Mr. Pelter.
- Q. In what part of the mine were you working?
- A. In 16 it is called.
- Q. How far is that from where this explosion is supposed to have occurred?
- A. About two thousand or twenty-five hundred feet.
- Q. Did you hear the explosion?
- A. No, sir; I just heard a drumming in my ears and I thought it was a fall of slate.
- Q. How long was it afterwards until you came out?

A. It was between half an hour and three-quarters. I suppose, until I got to the shaft.

Q. Did anybody come out with you?

A. Only Mr. Pelter and I.

Q. When you came out did you experience any effects from the foul air?

A. No, sir; only I got a little light-headed, is all, as though I was going to sleep.

Q. Did you have any idea at the time of coming out what had happened?

A. No, not right then.

Q. Did you come out with the air or against the air?

A. Part of the way with and part of the way against it.

Q. What part against it?

A. About 500 feet or something like that.

Q. Was that just before you came to the shaft?

A. Yes, sir.

Q. Had you ever been in an explosion before?

A. No, sir.

Q. Did you ever experience foul air before?

A. I have experienced foul air in mineral mines—not coal mines—but not enough to cause an explosion.

Q. About how long was it after the explosion occurred that you came out?

A. Between half an hour and three-quarters. We went back to see whether this pillar had fallen.

Q. And excepting the slight experience you had, how was the air at that time?

A. It seemed perfectly good where we were.

Q. Are you in any way familiar from experience, with these gasses or damps that exist in mines?

A. A little; not much; I never found anything in this mine—not from experience.

Q. You found nothing in this particular mine?

A. No, sir.

Q. You are working in this mine at present, are you?

A. Yes, sir.

Q. How many men are working in the mine at the present time?

A. Six or eight of us, today, I reckon.

Q. All the time, I mean, when the mine has been working?

A. Well, eighty or one hundred; I could not say definitely.

Q. You do not know what caused this explosion?

A. Yes, sir; I think it was from hard shooting with a high explosive.

Q. Explain why you think it was from an overcharge of powder or high explosive?

A. Well, there have been cases where an excessive shot was used and it caused an explosion. The coal should have been dug under before shooting.

Q. Did you see this place before the explosion?

A. I saw it before the explosion—about a week before.

Q. Were you in there at that time?

A. Yes, sir.

Q. At the place where this shot is supposed to have been made?

A. Yes, sir.

Q. Have you been in there since the explosion?

A. No, sir.

Q. What was the condition of the mine in that particular place when you were in there before?

A. Perfectly good, sir.

Q. Were you acquainted with the men who were in there at the time?

A. Yes, sir; I just knew them through meeting them in the mine.

Q. How long did you know them?

A. I knew them for the past twelve months.

Q. Did you know from your acquaintance that they were experienced people?

A. Yes, sir; Burgess was a good, practical man and so proved himself in other parts of the mine.

- Q. What were they—day workers?  
A. They were day workers at that particular time.  
Q. Do you know what kind of an explosive they were using?  
A. I suppose it was dynamite.  
Q. You do not know, though?  
A. No.
- 

THOMAS MASON, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Thomas Mason.

Examination by Judge Matthews:

- Q. What is your business?  
A. I am a miner, sir.  
Q. How long have you been a miner?  
A. Thirty years.  
Q. Where have you worked during that time?  
A. In England, Africa and America.  
Q. How long in America?  
A. Seven years.  
Q. How much of that time in this county?  
A. Well, in this county just about four months.  
Q. Where are you working at the present time?  
A. Right here at the Whipple mine.  
Q. How long have you been in the Whipple mine?  
A. As near as I can guess it is about four months.  
Q. What is your particular vocation in this mine?  
A. Fire boss, sir.  
Q. What are your duties as fire boss?  
A. Well, I go around and see that the mine is safe and free from gas. I examine around to see if the stoppings are all right in the mine, and the places where the miners are digging, to see whether they are free from gas and to see whether the ventilation is all right.  
Q. Are you familiar with mine ventilation?  
A. Yes, sir; I have had pretty good experience.  
Q. What are the kinds of gas that are generally generated in mines?  
A. I could not tell about that; I haven't seen but little here.  
Q. I say in mines generally what kinds of gas are generated?  
A. Well, I am not well enough up to explain that technical point; still at the same time I know what stith or black damp is. I can tell explosive gas, too.  
Q. What is the gas that is an explosive gas?  
A. Well, I prove it by my lamp; I know when it is there and I know how to get at it.  
Q. You recognize it when it is there?  
A. Yes, sir; but I don't know the name of it.  
Q. Is there any difference between gas that explodes from ignition—that is, by coming in contact with a light—and black damp?  
A. Well, I could not say anything about the difference in this mine, except the little gas I found here.  
Q. In black damp your light will go out, will it?  
A. Yes, sir; or almost.  
Q. That is the kind that smothers?  
A. Yes, sir; it is more like a burnt stick, or something like that.  
Q. Black damp is what exists after an explosion, is it?  
A. Yes, sir.  
Q. Well, after the explosion occurred I understand that there were about eleven or twelve men that died from suffocation. Did you see those men?  
A. Yes, sir.  
Q. That is, they died from the effects of black damp?

A. From foul air.

Q. Is that the same thing?

[Not answered.]

By Delegate Mitchell: Q. Do you believe foul air and black damp to be the same thing?

A. Oh, no, sir.

By Judge Matthews: Q. They speak of it as foul air, and black damp, after an explosion?

A. I could not say anything about this but I think most of these men were overcome with foul air.

A. Now, the thing I am trying to get at is this: That foul air is what generally exists after an explosion. Is that right?

A. Yes, sir.

Q. You had charge of the mine and looked after its ventilation, did you? That was your business?

A. Yes, sir.

Q. To look after the stoppings, as you call them?

A. Yes, sir.

Q. That is, to see that the air is freely circulated?

A. Yes, sir.

Q. What do you do, for instance, if in any part of the mine you find any of this gas?

A. Well, I use my own judgment if I find gas, and I did find a little gas once since I have been here about half an inch from the top. I stopped that place and that identical place that I am speaking of now is stopped yet.

Q. This gas is lighter than air and it is nearer the roof?

A. That is where I found it—next to the roof—and I traced it back five or six feet.

Q. Did you find it in an entry or in a room?

A. In a room.

Q. And you succeeded in driving that out?

A. I stopped the place and fenced it off. It was just a little ahead of the air and I was preparing to drive that gas out before anybody worked there.

Q. What entry was that in?

A. On 16 entry, No. 2 room.

Q. How far from this explosion?

A. Oh, I guess it would be—well, I could not say for sure, but it is a long ways; it is in a different portion of the mine altogether; I would say twenty-five hundred feet.

Q. I believe you stated that you were in this mine the day of the explosion?

A. Yes, sir.

Q. And you were in before the explosion?

A. Yes, sir.

Q. Did you discover any evidences of gas in the mine?

A. Not but just at this place I have spoken of.

Q. But there was nobody in that particular place?

A. No, sir; it is fenced off right now.

Q. Were you up in this section where the explosion took place?

A. Yes, sir.

Q. When were you there before it took place?

A. I would go in the mine at 3 o'clock and it would be half after 5 o'clock when I would get to this place.

Q. How did you find the place when you got there?

A. It was all right, sir.

By Delegate Mitchell: Q. What do you mean by fencing off a place?

A. We fenced it off to keep the men from going in.

Q. What did you put across there?

A. I put a bank rail across the room.

Q. What did you write on it?

A. "Keep out here."

The following notice was found posted at the tippie of the Whipple mine:

# NOTICE! NOTICE! NOTICE!

Commencing at once at all mines on the

## WHITE OAK BRANCH

1. Shot inspectors will be employed at each mine, whose duty it will be to examine every shot before being fired. Any employee shooting in the mine without first having holes and charge inspected will be discharged and prosecuted.

2. The sale of dynamite in the store will be stopped and its use prohibited in the mines except on order from the SHOT Inspectors.

3. No shots on the solid or shots in rock shall be fired except by the Shot Inspectors themselves.

May 6. 1907.

S. DIXON,  
General Manager.

\* After completing the taking of testimony at the Whipple mine, the Committee returned to Glen Jean and obtained a list of prices of sundry staple articles at the store of the Collins Colliery Company at that point.

The journey was then resumed and the party arrived at Thurmond at 6 o'clock in the evening and remained over night.

## PRICE LIST OF SUNDRY ARTICLES AT THE STORE OF THE PRUDENCE COAL COMPANY:

Force .....	.15	California canned goods.....	.25
Rolled Oats .....	.10	Standard grade corn, 3 for..	.25
Egg-O-See .....	.10	Tomatoes .....	.10
Grape Nuts .....	.15	Evaporated fruits:	
Pettyjohn's .....	.20	Apples .....	.15
Imported macaroni .....	.12½	Peaches .....	.15
Domestic .....	.10	Currants .....	.10
Starch .....	.10	Prunes .....	.12½
Barley .....	.10	Fresh meats:	
Tapioca .....	.15	Boil .....	.10
Jello .....	.10	Best cuts steak .....	.12½
Church's soda ½ lb.....	.5	Roast .....	.12½
Baker's coca, ½-lb. tins.....	.30	Dried salt meats .....	.15
Chocolate .....	.50	Select breakfast bacon.....	.18
Coffee .....	.18	Ham, sliced .....	.20
Dutch Java coffee .....	.25	Ham, whole .....	.18 and 20c
Canned corn beef, 2 lbs.....	.25	Pure lard .....	.15
Lunch tongue .....	.35	Flour, 1-16th barrel.....	.45
Salmon .....	.15 and 25c	Flour, one barrel .....	\$6.00
Peas .....	.12½ and 15	Granulated sugar .....	.07
Royal Baking Powder, halves and pounds .....	.25 and 50c		

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PRICE LIST OF SUNDRY ARTICLES AT THE STORE OF THE COLLINS  
COLLIERY COMPANY:

Force .....	.10	Lenox soap, six for.....	.25
Grape Nuts .....	.15	Salt meats .....	.15
Egg-O-See .....	.10	*Fresh meats .....	.10 to .15
Tapioca .....	.10	Lard .....	.12 1/2
Baking powder, 5 and.....	.10	Pure lard .....	.15
Granulated sugar .....	.07	Coffee .....	.18
Molasses and syrup, cans 15c:		Finest Java .....	.25
two for .....	.25	Potatoes, 25c pk. bu.....	.80
Finest California fruits from		Corned beef, sliced.....	.16
20 to .....	.35	Corned beef, 2-lb. cans .....	.25
Tomatoes .....	.12 1/2	Salted meats .....	.15
Corn .....	.10	Ham sliced .....	.20
Peas .....	.10	Ham, whole .....	.18
Peas, finest .....	.12 1/2	Soda, 5c and .....	.10
Maryland pie peaches.....	.15	Lima beans .....	.08
California pie peaches, 20 to, .25c		Whole navy .....	.05
Republic California goods....	.25	Breakfast bacon .....	.16
Flour, sacks, 40 to.....	.45		
Flour, Barrel... 85.50 and 86.00			
Fairy Soap .....	.05		

[\*This company kills its own  
cattle.]

MAY 10TH, 1907.

Left Thurmond at 7:30 a. m. for the Piney River field in Raleigh county, on the Piney Branch of the Chesapeake & Ohio Railway.

Stopped at Cranberry Junction early in the afternoon and visited the Mabscott mine, the following members of the party entering the mine: Messrs. Strickling, Mitchell, Nugent, Paul, Henry and Dr. Kirkpatrick. The inspectors found a miner with eleven sticks of dynamite, which they brought to the outside of the mine.

Returning to Cranberry Junction the party took the Piney River & Paint Creek Railroad to Cranberry No. 1 shaft. Messrs. Paul, Nugent and Henry descended the shaft and made a short trip of inspection.

A number of officials and miners appeared before the Committee and the testimony of sundry witnesses was taken.

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## TESTIMONY TAKEN AT CRANBERRY MINES.

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J. T. MAYNOR, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of J. T. Maynor.

Examination by Judge Matthews:

Q. State your name and age?

A. J. T. Maynor; twenty-eight years old.

Q. Where do you live?

A. I live in this county.

Q. What is your business?

A. I am a coal miner.

- Q. How long have you been mining coal?
- A. I have been mining coal about fifteen years.
- Q. Where are you mining at present?
- A. At Cranberry—in this shaft.
- Q. How many miners are there in that shaft at this time, as nearly as you know?
- A. I could not say exactly. I think they will average about twenty on the day shift and about ten at night.
- Q. Do you mine this coal by machinery or by hand?
- A. By hand.
- Q. Do you rent a company house?
- A. No, sir; but I board in a company house.
- Q. Are you married or single?
- A. I am single.
- Q. Do you buy at the company's commissary?
- A. If I ever need anything; or at any other store if I want to trade there. I trade where I please but I do not buy very much.
- Q. So you buy wherever you please?
- A. Yes, sir.
- Q. How often do you get paid?
- A. Once a month.
- Q. What are you generally paid in?
- A. In money.
- Q. How do you buy at the company's store when you do buy there?
- A. Well, you go to the office and get an order and take it to the store and deal it out.
- Q. What do you get when you say you get an order at the office? What kind of an order is that?
- A. That is scrip, they call it. It is an order for merchandise at the company's store.
- Q. They give you scrip at the office for this accommodation?
- A. Yes, sir; it is a coupon.
- Q. Can you get that or do you ever get that in advance of work?
- A. Yes, sir; I suppose I could; I never have but I suppose I could.
- Q. You are supposed to trade that out at the company's store?
- A. Yes, sir. Well, I never tried to trade it anywhere else.
- Q. Do they take it at other stores around here?
- A. I do not know; I never presented any at any other store.
- Q. Are there other stores about here?
- A. Yes, sir; there is one right up here about half a mile, I guess.
- Q. You have perfect liberty to trade wherever you want to, as I understand?
- A. Yes, sir.
- Q. You have never been under any restraint about that but you trade wherever you please?
- A. Wherever I please.
- Q. They use explosives in this mine, do they, in mining the coal?
- A. They shoot the coal.
- Q. What do they shoot the coal with?
- A. Powder and dynamite. If it is a wet place they use dynamite.
- Q. How do they pay here at this mine—by the ton or bushel?
- A. It is by the ton.
- Q. What company is this?
- A. The Cranberry Fuel Company.
- Q. What is the character of this mine, generally speaking? Is it damp or dry?
- A. Well, I couldn't hardly say; I would call it damp.
- Q. You mean by damp that it is wet?
- A. Yes, sir; wet.
- Q. You say that you have been digging coal for fifteen years?
- A. Yes, sir; I have been working in mines that long—driving, laying tracks and working around mines.
- Q. Do I understand that during all that time you have been working in West Virginia mines?

A. No, sir.

Q. Where have you worked besides in West Virginia?

A. In Illinois, Indian Territory, Arkansas and Kentucky.

Q. You are familiar, are you, as a miner, with the gasses that are generated in coal mines?

A. Yes, sir; I have worked in gas and can tell when I come to gas.

Q. You can tell when you come across it?

A. Yes, sir; I can tell when my place is dangerous and it is time to get out.

Q. What is the character of this mine with regard to gas?

A. I have never seen any and do not think there is any here. I have never heard of any.

Q. You never have experienced any?

A. No, sir; I have not.

By Senator Kidd: Q. State what rules, if any, the company have promulgated for the protection of its men?

A. Well, the rules are posted up around here. There is one in the blacksmith shop and one down here in the engine house, I believe. I never have read them very much.

Q. Are you allowed to put in solid shots?

A. No, sir.

Q. When you use dynamite do you do it under the direction of the fire boss or mine boss?

A. Well, the mine boss; yes, sir.

Q. Does he tell you how much to use or instruct you in the quantity to use?

A. No, sir; he does not come right up to every shot that is put in.

Q. I mean have you any general instructions as to the quantity you put in?

A. Yes, sir.

Q. How do you get this dynamite when you want to use it?

A. We get it from the company.

Q. And how much at a time?

A. You can buy all you want to at a time but you are only allowed to take a certain number of sticks down in the shaft at one time.

Q. How many are you allowed to take at a time?

A. I believe it is ten but I never have taken ten in one day.

Q. You would use as many as ten a day.

A. Yes, sir; sometimes two men in one place would use that much.

Q. Does the miner himself pay for these explosives?

A. Yes, sir.

Q. Then you are required to pay for your own powder or dynamite?

A. Yes, sir.

Q. And you get so much a ton for mining?

A. Yes, sir.

Q. What is that amount?

A. Forty cents a ton.

Q. And you say you use no machines for mining before you put off a blast?

A. No, sir.

Q. Do you do your mining with a pick?

A. We do that with a pick.

Q. Well, do they make solid shots in this mine?

A. No, sir; I do not think they do; they are not supposed to.

Q. Are the men watched about that?

A. Yes, sir.

Q. Guarded well?

A. Yes, sir; I would be afraid to put off a shot in the solid unless I wanted to get "fired."

Q. If you have any grievances is there any restraint put upon you about complaining or are you allowed to complain freely?

A. Yes, sir; but I have never had any grievances and do not know of any.

Q. Have you ever been forbidden to make any complaint of any grievances you may have on account of treatment, or otherwise, in this mine?

A. No, sir.



- Q. How long have you been connected with this mine?  
 A. About ten months.  
 Q. Do you regard the mine as safe?  
 A. Yes, sir.  
 Q. Is it well equipped?  
 A. Well, it is as well equipped as it can be for the time it has been running.  
 By Judge Matthews: Q. How long has this mine been running?  
 A. I could not say. It is a new mine and has been shipping coal, I think, for something over a year.  
 Q. Is the mine boss usually in the mine during the day?  
 A. Yes, sir.  
 Q. Is the fire boss in there a part of the day?  
 A. Well, the mine boss acts as fire boss himself.  
 Q. Does he go in of a morning to see if the different rooms are safe?  
 A. I could not say about that.  
 Q. Do you find a report at the tipple of a morning stating whether or not it is safe to go in, or anything from the fire boss?  
 A. He is always at the top of the mine, the fire boss is.  
 Q. He is there and instructs you whether it is safe?  
 A. Yes, sir.  
 Q. Has there been any time when it was not safe?  
 A. No, sir; there has been no time when it was not safe.  
 Q. And you say you have at no time detected any gas in this mine?  
 A. No, sir; I have never detected any gas in this mine.  
 Q. In this State in what other mines have you worked?  
 A. I have worked on Loup Creek, on the Norfolk & Western and on New River.  
 Q. For what companies?  
 A. I have worked for the Dunn Loop Coal Company and the Kilsyth Coal Company, and for the Mayberry Coal Company on North Fork. It has been a long time ago that I worked on the Norfolk & Western; that was in 1896.

A. ROLLINS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of A. Rollins.

Examination by Judge Matthews:

- Q. What is your age, place of residence and occupation?  
 A. My age is forty-two; I live here at Cranberry; I am a miner but I do not dig coal now; I am night boss at this place.  
 Q. How long have you been engaged in mining?  
 A. About thirty years.  
 Q. How long have you been connected with this mine?  
 A. Well, I have been connected with this mine about thirty days or probably a little over thirty days.  
 Q. Well, did you hear the evidence of Mr. Maynor?  
 A. Yes, sir.  
 Q. What have you to say about his statements in regard to the condition of this mine and the way it is worked?  
 A. His statements are as near correct, I believe, as I could state it, or any other man.  
 Q. Where did you work before coming to this mine?  
 A. I worked for the McKell Coal Company over here on Loup Creek.  
 Q. When did you quit working for them?  
 A. I quit working for them on the 7th day of March.  
 Q. How long had you worked for them?  
 A. I worked for them close to three years.  
 Q. They had no explosions in their mines?  
 A. No, sir.  
 Q. And no gas in their mines?

A. Yes, sir; they had some gas.

Q. Were the miners and the men employed in those mines cautioned about the use of explosives, and so on?

A. They were in the McKell mines—about the way they handled their ammunition—the way they took it in, &c.

Q. How were you paid there?

A. When I was mining there I was paid—well, they claimed it was tonnage but we had car weights.

Q. How often were you paid?

A. Once a month.

Q. Were there any restrictions placed upon you about where you should buy, or could you buy wherever you saw fit?

A. With the McKell Company there was. That is, they did not restrict me, but as a general rule they restricted the men down to dealing at their stores. They had their stores there and they restricted their men as a body to patronize their company stores.

Q. The purchases made there, were they as reasonable in price as at other places?

A. Well, fairly. They were as reasonable with me as any company stores are.

Q. Did the men generally who were employed in the mine make complaint of the prices charged them at these company stores?

A. Now I will tell you that is a question I cannot answer. A body of men, of course, might be dissatisfied and I would not know anything about it.

Q. Did you hear any complaint of the men?

A. I heard complaint of the men; yes, sir.

Q. Were you paid at the end of the month?

A. Yes, sir.

Q. Suppose you were to take that money and go to other stores and purchase— independent stores—would they discharge you?

A. They did not discharge me but they have discharged men.

Q. For that?

A. Yes, sir.

Q. Lately?

A. Not right recently; they did, I think, last January, when two men were discharged.

Q. Did they discharge them for dealing at other stores?

A. That is what the men claimed; I do not know myself.

Q. Can you give the names of any of the men who were discharged?

A. I can name two; Joe Rogers was one who told me he was discharged for trading at another place.

Q. What is his post-office address?

A. Mount Hope, West Virginia.

Q. And the other man's name and address?

A. There was a fellow by the name of Jones that was "fired." He told me the same thing but he went back to work.

Q. Where is Jones now?

A. He is at Oswald.

Q. Since you have been here have there been any restrictions of that kind?

A. I never heard of any, sir; not a word.

Q. Are you a married man?

A. Yes, sir.

Q. Are there other stores here besides the company stores?

A. Yes, sir; there are several other stores around here.

Q. There have been no requirements that you should deal at the company's store?

A. No, sir; I never heard a word.

Q. Does the company's store here sell its goods as reasonably as you can buy them at other stores?

A. Just about as reasonably—such goods as they handle. They have not got a fully stocked store here but I think they sell their goods about as reasonably as they can.

Q. As miners, then, you have no reason to complain of this company's treatment along that line?

- A. Not along that line we have not.
- Q. Along any other line have you any reason to complain?
- A. No, sir; we have not.
- Q. Do you rent a company house?
- A. Yes, sir.
- Q. What rent does the company charge you?
- A. They charge a fair rent for the property I have been renting from them.
- Q. What, per month?
- A. Eight dollars for last month. They have houses that rent from five to eight and ten dollars.
- Q. What is the size of the house you rent?
- A. The house I rent now is an eight-room house.
- Q. And you pay eight dollars a month?
- A. I paid eight dollars for last month; probably it will be a little more. I have not made any contract along that line.
- Q. But they charge from five to ten dollars?
- A. Yes, sir.
- Q. Are the houses comfortable and finished up well?
- A. Yes, sir; the houses I have lived in have been very well finished.
- Q. Are there any other charges against your monthly wages besides your rent?
- A. Nothing but my coal and rent, and doctor and hospital service.
- Q. What sum do you pay each month for hospitals and medical treatment?
- A. Twenty-five cents a month for hospitals; doctor a dollar a month; coal one dollar a month.
- Q. Now, does that include medical treatment to you and your family?
- A. Yes, sir; medical treatment to me and my family. We pay a dollar a month for us all.
- Q. How would conditions compare here, as to the treatment of their men, with the McKell mine at which you last worked?
- A. Well, their treatment generally is far better here, in every respect. I have found it that way.
- Q. What were the charges at that mine for these items you have just named?
- A. Well, they are practically the same.
- Q. Were there any other charges there against you?
- A. No, not that I know of.
- Q. Does the company here keep a regular, competent physician?
- A. Yes, sir; I think so.
- Q. And he responds to the call of the miners whenever needed?
- A. Yes, sir; at all times I have found him that way.
- Q. Well, now, you say there are differences in the conditions at the McKell mine and this. Will you state some of the differences in the mines themselves?
- A. Well, in the mines alone there are different conditions. They are very low-priced over there. I find a man can make a far better living and far more money here than there. At least men are coming from that point to this point.
- Q. Taking the safety conditions of that mine as compared with this, how would it be?
- A. Well, the safety conditions are better here than they are in those mines. In those mines they haven't any air to work by.
- Q. How do they ventilate that mine?
- A. They ventilate by fans; but the air routes in those mines over there are not sufficient to support those men with a sufficient amount of air, as they are here.
- Q. How is the air in this mine?
- A. Our air here is first-class; we have a good supply of air here.
- By Delegate Mitchell: Q. How many men do you work at night?
- A. I have about eleven men in my charge at night.
- Q. Don't you know how many you have?
- A. I could not come right down and say to the very man. Of course I have got miners under my charge and engineers under my charge and other men under my charge every night, but some nights they are two or three short, may be.
- Q. What is the greatest number you work in the mines?
- A. Twelve men is as high as I have had—that is, twelve miners at the face. Of

course I work six day men and that makes eighteen men on the bottom. We work about thirty men counting those at night, and on top—in the mine and all around here.

By Delegate Strickling: Q. What is the difference in the thickness of the coal in the McKell mine and the mine here?

A. There is not much difference between the heights. They haven't got quite as high a seam here as they have there.

A. N. HUMPHREYS, Jr., a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of A. N. Humphreys.

Examination by Judge Matthews:

Q. Give your age, residence and occupation?

A. My age is twenty-eight; my residence at present is Cranberry; occupation, superintendent of the Cranberry Fuel Company.

Q. How long have you been superintendent of this company at this point?

A. Since February 1st, 1907.

Q. What experience had you in connection with mines prior to that time?

A. I had about nine or ten years experience as mining engineer and assistant superintendent.

Q. At what mines?

A. The mines of the Ellsworth Coal Company, Ellsworth, Pennsylvania; The W. B. Skelley Coal Company, at Export, Pennsylvania; and the Westmoreland Coal Company at Irwin, Pennsylvania.

Q. Have you given attention to the study of gas in mines

A. Yes, sir.

Q. What have you to say about the presence of gas in this mine?

A. We do not have any at all; we have no signs of gas at all.

Q. What rules have you promulgated for the government of the men in the mine as to their conduct there in the use of explosives?

A. Well, I have a man there always in the morning, before the men go in, and the same thing in the evening, before the night shift goes in, and any man who is caught firing a shot off in the solid is not only discharged but he is prosecuted.

Q. Then the men are given to understand that a penalty will be exacted from those who disobey the rules, are they?

A. Yes, sir.

Q. And they are informed what the rules are?

A. Yes, sir; we have copies of the mining rules.

Q. How frequently do you go through and inspect the mine?

A. I am in it practically every day. Sometimes I miss a day or two, but I generally go in every day.

Q. Have you had any accidents at this mine?

A. We had a slight accident; a man had his arm broken, through his own negligence.

Q. But I mean by the way of an explosion?

A. No, sir; we never have had any.

Q. Are any restraints placed upon your men in the way of where they shall trade, or anything of that kind?

A. No, sir. We expect our men to trade with us in the store; if they do not want to they can go where they want to. Of course we like for them to go with us.

Q. Do you sell goods to them at the same prices you sell to other people who come in and patronize the store?

A. Yes, sir; just the same.

Q. Is there any restraint placed upon your men about complaining, if they have any grievances, or forbidding them from making complaint?

A. No, sir; none at all; we try to adjust any grievance that any miner or man has.

Q. In your rents what do you charge to miners?

A. We charge five dollars for a three-room house; six dollars for a four-room house and eight dollars for a six-room house; and ten dollars for an eight-room house.

Q. Do you furnish and have you furnished regular employment to your miners?

A. Yes, sir.

Q. About what do they make a month?

A. Well, now, that is pretty hard to tell. We have men that run as high as \$125 a month and we have others that make \$40. It depends on the man.

Q. It depends upon the experience of the man?

A. Yes, sir.

Q. Well, a good, experienced miner who is industrious, how much could he make a month?

A. One hundred dollars.

Q. They select their own number of hours to work, do they?

A. We aim to have the miners stay in the mine from 7 until 5:30. If a man comes to the bottom any time between those hours we let him off at any time; but we try to keep them on regular hours to keep up a system and give them all employment during regular hours.

Q. Do people living here in the community, not employed by the company, trade in the company's store?

A. Yes, sir; quite a number of outsiders deal with us here.

Q. And all people are treated alike.

A. All people are treated alike.

By Chairman Gartlan: Q. How many openings are there in this mine?

A. We just have one shaft, which is divided into four compartments. There is a pipe-way, two coal-ways and one air shaft.

By Senator Kidd: Q. I will go a little farther: Are you mining for the purpose of connecting this with any other mine?

A. Yes, sir; our other mine is up here about a quarter of a mile. We are six hundred feet from being connected now.

By Chairman Gartlan: Q. Is that your intention—to connect?

A. We are driving right towards one another and we are six hundred feet apart, now.

Q. That is your intention—to work out to the second opening?

A. Yes, sir.

By Senator Kidd: Q. Have you a copy of the mining laws and do you study them and keep in touch with the requirements of the West Virginia statutes?

A. I do not have a copy just at present. I have written for one but have not received it yet.

Q. How do the requirements here compare with those in the Pennsylvania mines which are much older than this?

A. We try to require just about the same from the men here that they do up there.

On the return trip from Cranberry on the afternoon of May 10th, the Committee had a sitting at Raleigh, Raleigh county, where several witnesses were examined.

## TESTIMONEY TAKEN AT RALEIGH.

ERNEST CHILTON, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Ernest Chilton.

Examination by Senator Kidd:

Q. Please give your age, residence and occupation?

A. Age thirty-seven; residence Raleigh; general manager of the Raleigh Coal & Coke Company.

Q. How many mines has the company in operation in this county?

A. Four.

Q. Have they others in any of the adjoining counties?

A. No, sir.

Q. How long have you occupied the position you now hold?

A. Six months.

Q. What experience had you had in the mining business before accepting your position with this company?

A. Seventeen years.

Q. At what points?

A. I have worked in Pennsylvania, Ohio, West Virginia and Old Virginia.

Q. Where, in West Virginia, before you came to the employment of this company?

A. In the Fairmont field.

Q. Are these four mines here drift or shaft mines?

A. They are drift mines.

Q. What number of men are employed in each at the present time?

A. No. 1 mine has about fifty men; No. 2 mine has about twenty-five men; No. 3 mine has about one hundred men; No. 5 mine has about twelve men.

Q. What seam of coal are you mining?

A. Number 3.

Q. How many openings has each of these four mines?

A. No. 1 mine has two; No. 2 mine has two; No. 3 mine has three; No. 5 mine has two.

Q. Have you had any trouble with gas in any of these mines?

A. We have not.

Q. Have you noticed any accumulation of gas in any of them, and if so, in what quantities?

A. I have never found any.

Q. Have you had any explosions of any kind in any of these mines since you have been connected with them?

A. We have not.

Q. How are your men employed—by the ton or by the day?

A. By the ton.

Q. What price do you pay per ton?

A. Forty cents.

Q. Is that the usual price paid in this region?

A. As I understand it; yes, sir.

Q. How are your men paid? I mean how often are they paid?

A. Once every thirty days.

Q. How are they paid?

A. They are paid in cash.

Q. Have you company stores at each of these mines?

A. No, sir; we have but one store.

Q. Do you make any requirement of your men to purchase at that store?

A. We do not.

Q. Are the men permitted to purchase where they please?

A. They are.

Q. Does the company erect and furnish houses for its miners?

A. They do.

Q. What rents do they charge?

A. Five dollars and eight dollars.

Q. That depends, does it, upon the number of rooms in the house?

A. It depends upon the size and the number of rooms in the house.

Q. What does each miner pay per month for coal for domestic use and for hospital and medical attention? Have you any arrangement with them as to those matters?

A. We have an arrangement of one dollar per month for medical attention. The coal is sold to them by the load, as they order it,

Q. At what price?

- A. At different prices, according to the grade of the coal.
- Q. Is that at the same price you sell to other people?
- A. Yes, sir.
- Q. And one dollar a month for medical attention includes attention by your physician to the family as well as to the miner himself, does it?
- A. It does.
- Q. Do you use any restraint to prohibit your men from complaining of any grievances or do you interfere in any way with their liberty in these matters?
- A. We do not.
- Q. Are there any requirements that they shall do certain things or not do certain things, independent of their work in the mine?
- A. No, sir.
- Q. Are they allowed to complain of any grievance that would occur between themselves, or any trouble they would have with the company?
- A. They are.
- Q. They are not in any way forbidden to make known their complaints?
- A. They are not.
- Q. Have you mine bosses for each of these mines?
- A. Yes, sir.
- Q. And they are under your supervision?
- A. Yes, sir.
- Q. How often do you, Mr. Chilton, investigate these mines, and inspect them, and advise with your sub-agents?
- A. We meet and talk matters over once every day.
- Q. Do you go down in these mines, and if so, how frequently?
- A. Well, I visit the mines whenever it is necessary, and sometimes nearly every day. Some weeks I am in the mines nearly every day.
- Q. Have you regulations governing the miners in each of these mines?
- A. We have.
- Q. Do you permit solid shooting in these mines?
- A. In some cases we do.
- Q. Is that left to the miner—to be the judge of the occasion to do that?
- A. No, sir.
- Q. Who advises him?
- A. The mine foreman.
- Q. Is the miner permitted to do this himself at any time unless advised to do so by the mine foreman?
- A. No, sir.
- Q. Do you use machines for drilling under the coal or it is done with a pick?
- A. Part of our work is done with machines.
- Q. Do you have any trouble with the accumulation of dust in these mines?
- A. No, sir.
- Q. Do you use a sprinkler or are they damp mines?
- A. They are damp mines.
- Q. You have no trouble, then, with accumulations of dust?
- A. No, sir.
- Q. How are these explosives furnished to the men—through the mine boss?
- A. No, sir; they buy them from the supply department.
- Q. But are they limited as to the quantity of dynamite they shall take in on any one day?
- A. Yes, sir.
- Q. What is that limit?
- A. It is governed by the judgment of the mine foreman.
- Q. That is left to him?
- A. Yes, sir.
- Q. And they are not permitted to take it in without his consent in any larger quantities?
- A. No, sir.
- Q. And you do all you can towards advising your men to observe these rules to secure their safety?
- A. We do, sir.
- Q. And you have no trouble in the way of explosives, or anything of that kind?

- A. No trouble of any kind.  
Q. Have you regular rules posted where the men can see them?  
A. We have printed rules posted.  
Q. Well, now, do you have a fire boss who goes in the mine in the morning and reports whether the mine is safe or not?  
A. We do not.  
Q. That is left to the mine boss, is it?  
A. We do not consider it necessary to have that; it is all left with the mine foreman.  
Q. Your mines are all drift mines?  
A. Yes, sir.  
Q. How far are you back in the hill from the openings?  
A. In the most extreme cases, thirty-nine hundred feet.  
By Delegate Strickling: Q. How much is charged for explosives?  
A. Powder is two dollars per keg.  
Q. And dynamite?  
A. I am not prepared to say as to that.  
By Senator Kidd: Q. Your charge, however, for each of these, is reasonable and as low as they could be sold to other people for, if they wanted to buy and you had them to sell?  
A. Yes, sir.
- 

JAMES WHITE, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of James White.

Examination by Senator Kidd:

- Q. State your age, residence and occupation?  
A. Age thirty-six; residence Raleigh; occupation miner.  
Q. How long have you followed the occupation of mining?  
A. About twenty years.  
Q. How long have you been connected with the mines here?  
A. About four years and three or four months the coming spring.  
Q. With this same company?  
A. With this same company.  
Q. In what capacity?  
A. Well, I was mine foreman here for a couple of years.  
Q. And what are you doing now?—are you mining?  
A. I am doing machine work.  
Q. You do machine work?  
A. Yes, sir; electrical machine work.  
Q. Have you and the other men, so far as you know, any reason to complain of the treatment of the company or its agents and officers?  
A. No, sir; we have not.  
Q. Are their charges reasonable?  
A. Very reasonable.  
Q. Their pay is all right, is it?  
A. Yes, sir.  
Q. What does the average miner make here in this kind of coal?  
A. I suppose he would average about seventy-five dollars.  
Q. Do they place any restrictions upon you as to where you shall buy for yourself and family?  
A. No, sir.  
Q. Nothing whatsoever of that kind?  
A. No, sir.  
Q. You pay so much a month, do you, for medical treatment?  
A. One dollar for me and my family.  
Q. And that is all you are required to pay. If you were all sick one dollar a month or twelve dollars a year would cover medical attention for all of you?  
A. Yes, sir; all.



- Q. They have a good, competent physician, have they?
- A. Yes, sir; splendid.
- Q. And he is attentive, for what you pay him?
- A. Yes, sir.
- Q. Does the company pay oftener than once a month or can you go to them and get what is called "scrip" and deal in the stores?
- A. Yes, sir; you can get that if you want it.
- Q. Do you ever do that?
- A. Oh, yes.
- Q. If you take that scrip to the store do they charge any higher prices than they would for cash?
- A. No, sir; dollar for dollar.
- Q. Are you charged anything for the use of that scrip, directly or indirectly, by the company?
- A. No, sir.
- Q. If they issue scrip to you to the amount of ten dollars that is all that is charged to you?
- A. That is all that is charged to us.
- Q. And with that ten dollars of scrip you can go to the store and buy just the same as you could for ten dollars in money?
- A. The same amount.
- Q. There is no restraint placed upon you as to your right to complain of any grievances or anything of that kind?
- A. No, sir.
- Q. Have you rules for the government of the men in the mines?
- A. They are posted right at the mines.
- Q. So everybody can read them?
- A. Yes, sir.
- Q. Are you permitted to make what are called solid shots?
- A. I have never done it personally; they might do it.
- Q. Do miners frequently get careless by wanting to get results without doing a great deal of hard work?
- A. I could not say; I have never done it.
- Q. What do you mean by "running a machine?" Do you mean cutting under the coal so it can be blasted?
- A. Yes, sir.
- Q. What have you to say about the creation of dust by a machine as against the amount of dust created by the use of a pick in undermining?
- A. In my opinion the dust is a great deal worse than in pick mining.
- Q. It creates a great deal more dust.
- A. Yes, sir.
- Q. Have you any trouble with the accumulation of dust in this mine?
- A. No, sir; this is a pretty damp mine.
- Q. Have you observed, in the time you have been here, the existence of gas in any of these mines in which you have worked?
- A. No, sir.
- Q. You haven't been bothered with it at all?
- A. Not in the least.
- Q. The officers of the company, you say, have placed no restraint upon you?
- A. None whatever.
- Q. At election time do they insist or direct that the men shall vote as they want them to vote?
- A. I have never heard of it and I have been here four years.
- By Judge Matthews: Q. Whose house do you live in?
- A. In a house belonging to the Raleigh Coal & Coke Company.
- By Senator Kidd: Q. What do you pay?
- A. I pay eight dollars for mine.
- Q. What size house is it?
- A. The rooms are sixteen by eighteen and we have four rooms and a kitchen and I pay eight dollars a month. It is a very comfortable house.
- Q. And that is as high as they charge?
- A. That is all I know of. I have one of the largest houses they have.

By Delegate Strickling: Q. You say you worked for the Fairmont Coal Company before you came here?

A. No, sir; in the Fairmont field.

Q. Do they have any different method of shooting up there from what they have here?

A. Yes, sir; I worked for the Federal Coal Company and we were bothered with gas and shot with masurite.

By Mr. Nugent: Q. Do the miners use it or does the company employ shot-firers who use it?

A. The company employs shot-firers.

By Delegate Strickling: Q. And the miners are not permitted to shoot at all?

A. No, sir.

Q. What is "masurite," as you call it?

A. I cannot tell you; it is an explosive.

Q. A non-inflammable explosive?

A. Yes, sir.

Q. Then those companies out there do not permit the use of either powder or dynamite?

A. In that particular mine they do not.

By Senator Kidd: Q. Was that a highly gaseous mine?

A. Yes, sir.

Q. Now, I want to ask you if the State mine inspectors come here and inspect your mines, and if so, about how often?

A. About every three months.

Q. Who was here last?

A. I am not prepared to say; our superintendent looked after that man.

Q. They advise, do they, and suggest about the employment of men, and so on?

A. They do.

Q. And go through it pretty thoroughly, and all the workings?

A. Yes, sir.

By Delegate Strickling: Q. How does that company in the Fairmont field regulate the matter of shooting, in regard to the men, and how do they keep the men themselves from shooting?

A. There is no explosive used by anybody except the company. The company employs shooters and there would be no reason for the men to have any explosive.

Q. You are now speaking of the Fairmont field?

A. I am speaking of the one particular mine in the Fairmont field.

Q. And you do not know how the other mines are and were regulated in that regard, do you?

A. I do not; no, sir.

Q. How many men were working in the mine in which you were working in the Fairmont field—about how many?

A. About one hundred.

Q. How many shot-firers did the company have?

A. Four.

Q. Were they supposed to do all the shooting?

A. Yes, sir.

Q. Who drilled the holes preparatory to shooting?

A. They furnished a machine and we had a set of drillers who operated that machine and drilled the holes.

Q. Those drillers were not miners. That was their specific business.

A. That was their specific business.

Q. Who tamped the shot—the drillers?

A. No, the shot-firers.

Q. What time in the day was this done?

A. Whenever we were ready. We were shooting continually.

Q. Where did the men go when the shooting was done?

A. The men would merely shift from one place to another. A man would go out of his working place into the next place and stay there until the shooting had been done.

Q. If a miner himself should attempt to shoot, what would be the result, under their rules, if you know?

A. He probably would be dismissed from work.

Q. How long did you work in this particular mine?

A. About two years.

Q. Was there ever an instance of a miner himself shooting in disobedience of the rule, to your knowledge?

A. No, sir.

Q. Did they use this particular explosive the time you were there?

A. They did.

Q. Did you ever see it explode?

A. Yes, sir.

Q. In what respect does it differ from powder or dynamite?

A. There is no flame to it.

Q. Was there to your knowledge ever any explosion from gas in that field?

A. Yes, sir.

Q. At which mine?

A. The George Creek Coal & Iron Company's mine exploded during my stay over there. The new central shaft exploded while I was there.

Q. Do you know whether they were using this non-inflammable powder or not?

A. I do not.

Q. Do you know whether they were employing shot-firers at that time?

A. I do not.

By Senator Kidd: Q. How were the miners paid in that mine when you were there?—by the day or by the ton?

A. By the ton. Coal loaders are paid by the ton and shot-firers and drillers are paid by the day.

Q. Then the miners only loaded the coal?

A. That was all.

Q. While special men drilled the holes and the shot-firers tamped them and did the shooting?

A. That was it.

By Delegate Strickling: Q. How was that shooting done? was the coal undermined first and then shot down?

A. Yes, sir.

Q. Did you ever know of an instance where the shot-firers shot in the solid?

A. No, sir.

By Mr. Nugent: Q. In connection with Senator Kidd's question as to the miners doing nothing but loading: Where you hadn't machines the miners did the cutting, did they, or was it all machine mining?

A. It was all machine mining.

By Delegate Mitchell: Q. In the issuance of this scrip is the party absolutely required to deal that out?

A. No, sir.

Q. Then do you ever redeem any of it in money?

A. No, sir.

By Delegate Strickling: Q. Right in that connection: this scrip is not employed, is it, if the party has worked his full month?

A. No, sir.

Q. He is then paid in cash?

A. Yes, sir.

Q. If he desires an advancement before the month is out then he is issued this scrip?

A. Yes, sir.

By Senator Kidd: Q. It is like an order; it is simply an order to the store for so much on his wages?

A. Yes, sir.

By Delegate Mitchell: Q. Well, suppose then you discharge a man. Under those circumstances, he having a certain amount of that scrip in his possession, would you redeem that or require him to deal it out if he received anything for it?

A. If we would discharge a man and he had scrip in his possession, we would redeem it.

Q. Then you would redeem it?

A. Yes, sir.



## TESTIMONY TAKEN AT MONTGOMERY.

W. M. GORDON, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of W. M. Gordon.

Examination by Delegate Duty:

Q. What is your occupation or calling?

A. Mining.

Q. How long have you been mining?

A. I have been mining for about sixteen years.

Q. For whom are you now engaged in mining?

A. At Carver Brothers mine on Morris Creek. It is called the Mecca mine.

Q. How long have you been so employed by them?

A. I have been employed by them about six or eight months.

Q. How many men do they employ in their mines in that field?

A. I guess about seventy-five, or one hundred, or may be more.

Q. Do you know how many mines they have?

A. They have got two running up there—the hard coal and the gas coal.

Q. Have they any mines any place else?

A. Not there they have not, but I think they have some more mines up there at Mt. Carbon or Eagle. I never was up there.

Q. Which one of these mines are you working in?

A. In the gas coal.

Q. Have you been engaged in the gas coal all the time you have been so employed by them?

A. Yes, sir.

Q. Are you a married man?

A. Yes, sir.

Q. Do you live in property owned by the company?

A. Not now I do not; I live here in town now.

Q. You are at liberty to rent property, then, wherever you please?

A. Yes, sir.

Q. How often do they pay you?

A. Twice a month.

Q. In what manner do they pay you? Do they pay you in money, checks or scrip?

A. Yes, sir; they pay in money—all that don't take the scrip. Where you don't go on and deal you get your money.

Q. What is the name of your superintendent?

A. Little John Carver.

Q. Well, now, you may state whether they treat you all right or not?

A. Yes, sir; they have got to treat me all right.

Q. How do they treat the balance of the miners?

A. I suppose they treat them about the same; there is no partiality I do not think.

Q. Are you allowed to complain when something goes wrong?

A. Yes, sir.

A. Are you ever discharged for complaining to them, or any of them?

A. Sometimes they do.

Q. How often?

A. Well, sometimes when a man goes to them for a better place, or isn't getting his turn, the bank boss gets mad and discharges him and says, "I don't want him there anyhow."

Q. Is that a very frequent occurrence? Does that happen very often?

A. No, sir; it is not very often; occasionally some fellow comes in that they don't like very well.

Q. Well, do they allow you to use explosives of any kind in the mine?—powder or dynamite?

A. You takes in powder in a flask, about five pounds at a time; you takes it in a flask with you.

Q. Are the miners alone permitted to use that powder?

A. Yes, sir; I suppose they is.

Q. There is no special man for that purpose?

A. No, sir.

Q. What kind of work do you do in the mine?

A. I dig coal.

Q. Well, do you use powder?

A. Yes, sir.

Q. You are permitted to do so, are you?

A. Yes, sir.

Q. What are the instructions about the use of powder? How have you been taught to use it?

A. Well, no one taught me there at all.

Q. Do you mine coal by the day or by the ton?

A. By the ton.

Q. Then, do you mean to say that you have had no instructions about how to use powder in the mine?

A. No, sir; not up there I didn't. All my instructions I know I done it before I came there.

Q. They knew that, did they?

A. Yes, sir; they knew I had been in mines for sometime.

Q. Did you ever shoot off in the solid?

A. Sometimes you do. When you get your hole a little too deep you would be on the solid, but just to say I shot it from the solid—that is something I didn't do. You see sometimes you get your hole back too deep—four or five inches too deep—on the solid.

Q. Were you forbidden to shoot off in the solid any time by the superintendent or mine boss?

A. Yes, sir.

Q. Do they allow you to do that or is that against your instructions?

A. They don't allow you to shoot from the solid.

Q. Do they have any instructions written or posted up forbidding that?

A. No, sir; I do not think they have; I haven't seen any.

Q. How do you know they forbid it?

A. The bank boss is the one I heard say so.

Q. Well, you may state in what manner you were instructed to throw the coal down?

A. Well, you dig it, you know—you dig your cut—and then put your hole in and tamp it up and shoot it down; and you just shoot down what you dig; that is the idea.

Q. You make an undercut first?

A. Yes, sir.

Q. Is that the way you are instructed to mine in that mine?

A. Well, he didn't instruct me to mine it but I know that is the way they do.

Q. What I am trying to find out is, do they all do that in there?

A. Yes, sir; that is what they are all instructed to do; I do not know whether they do it or not.

Q. Do they use anything outside of dynamite and powder to blow the coal down?

A. No, sir; I do not think they do; I have not seen them use anything else.

Q. Do you use dynamite at all in there?

A. I do not think they use any in the gas coal at all. I have not seen any used in the gas coal since I have been there.

Q. You use powder altogether?

A. Yes, sir.

Q. What is the condition of the mine? Is it dry or damp?

A. It is kind of damp but some of it is dry or dusty.

Q. Do you use machines in there to make these undercuts?

A. Yes, sir; we use machines in some places, and in some places picks.

Q. You may state whether or not the mine operators at any time cause the mine to be sprinkled with water?

Witness: Whether it needs to be sprinkled or not?

Delegate Duty: I want to know if it has been done. Do they do it?

A. No, sir; it has never been sprinkled since I have been there.

Q. Well, is it necessary?

A. Why, I should think it is, sometimes. It is so dusty and dry sometimes up in the heading that the dust is up to your ankles. It is just dry dust.

Q. And no effort is made to sprinkle it?

A. No, sir.

Q. Have you been over the mine pretty generally?

A. Well, I haven't been all through it, but I have been over a right smart of it.

By District Inspector Absalom: Q. What mines do you work in?

A. At Carver Brothers, up on the creek; the Mecca mine, they call it.

Q. Is the Mecca in the gas coal?

A. Yes, sir.

Q. What portion of that mine do you work in?

A. I work up on the straight.

Q. On the main entry, you mean?

A. Yes, sir.

Q. And you work over on the left—over at Peal's entry—and Peal's entry is connected with the Edgewater?

A. Yes, sir; and I have worked over on Dent's—I have worked there, too.

Q. That is on the first section—Dent's entry—isn't it?

A. Yes, sir.

Q. And you say there is dust up in there?

A. Yes, sir; in the heading; there is right smart dust there where I work.

Q. Now, do you know the distance between the Dent entry and the Peal entry is nearly a mile?

A. Yes, sir.

Q. But you found no dust except right on the main entry, in the working place?

A. That is what I am speaking about, you know.

Q. There is no dust in the working places?

A. No; there isn't in the rooms, of course, but that is what I meant—just on the entries.

Q. There is a fan located right in the head of that portion of the mine which takes the air through from Edgewater around through all the works of the Mecca mine?

A. Yes, sir; there is a fan there all right; but what I was speaking about was the dust. The fan doesn't have anything to do with the dust being down in the entry, you know.

Q. The dust is nearly—well, it is fully half a mile from the working place?

A. Yes, sir.

By Delegate Duty: Q. I want to ask you, Mr. Witness, how often the mine inspector comes in the mine, if you know? I mean the State mine inspector?

A. Well, I could not hardly tell you because he comes in there and I have never seen him unless I was on the outside.

Q. How often is your company mine inspector in the mine, or boss, or whoever he is?

A. He is in there all through the day—the mine boss is.

By Judge Matthews: Q. How many openings are there to that mine?

A. I do not know, sir; I could not tell you that.

Q. Has there ever been any explosions there since you have been there?

A. No, sir.

Q. When you speak of dust on the entry, do you mean simply the dust that accumulates by tramping back and forth in the main way? Is that the kind of dust you refer to?

A. Yes, sir; just on the entry, you know. I suppose it comes from coal fallung off, and tramping it, and it gets fine, you see.

Q. Do you know whether there is any gas in that mine?

A. Well, I could not tell you.

Q. Have you ever experienced any gas in there?

A. No, sir.

Q. Do you know whether there is any gas in this mine?

A. No, sir.

Q. What do you know about black damp, if anything?

A. I cannot tell that, except that it makes me sick and I come out.

Q. How many times have you come out sick?

A. Well, there are some places I could not stay in it and I would have to come out.

Q. Did you come out on account of the black damp?

A. Yes, sir.

Q. How many times, as near as you can tell, have you come out since you have been working there?

A. I have come out twice on that account.

Q. Were you ever overcome by it?

A. No, sir; I did not stay in it long enough, because as soon as I felt it I quit and came out, for I knew what it was.

Q. Who was with you at that time, if anybody?

A. I would be working in a room by myself.

Q. This black damp, then, was at the face of your room, was it?

A. Yes, sir.

Q. You say you do not know whether there is more than one opening to this mine?

A. No, sir; I do not know; I never examined for that.

Q. What is the nature of the air, for ventilation in the mine? Is it good or bad?

A. In some places it is good and some places it is bad.

Q. Where is it bad?

A. There is more bad air up towards the heading-up in the rooms, you know—than anywhere else.

Q. On the entries how is it?

A. It is pretty good on the entries.

Q. How many main entries are there?

A. Well, I could not explain that to you.

Q. Have you always worked in one part of the mine?

A. Yes, sir.

Q. Do you know whether or not there are parallel entries—two or more—running together in the mine?

A. Well, I have heard there was more but I never went up to them, you know.

Q. Well, you have noticed such things as breakthroughs?

A. Yes, sir.

Q. You have noticed those, have you?

A. Yes, sir.

Q. Well, about how often do you notice these on the entry as you go along?

A. Well, there are a good many of them.

Q. Where do you buy your powder or dynamite?

A. We buy it at the company's store.

Q. Is there any place else you can buy it in town except the company store?

A. Yes, sir; I suppose I could.

Q. There is no restraint on buying it wherever you want to?

A. No, sir; we can buy it wherever we want to buy it.

Q. Can you buy it as cheap at one place as you can at another?

A. I do not know so much about that.

Q. You have always bought it from the company, have you?

A. Yes, sir.

By District Inspector Solomon: Q. Now, what entry do you work on?

A. I work on the first right, up next to the heading—up on the straight.

Q. And you broke through to the old Eureka mine? That entry was broken through?

A. I did not work on that entry but on the first entry on the right—No. 1 room.

Q. And that entry was broken through to the Eureka mine?

A. I do not know only where I broke through. I never got up that high.



Q. The fifth room on that entry was broken through to the second and there is a splendid circulation of air, and it was very close to the fan, and the general practice was to cut the coal and make the cuts before they shot?

A. Yes, sir.

Q. And that was the condition of that mine. The mine was in excellent condition as far as that is concerned.

A. Yes, sir.

By Judge Matthews: Q. What have you been doing—driving entry or working in a room?

A. Working in a room.

Q. Do the men working in the rooms make breakthroughs occasionally?

A. Yes, sir.

Q. Does the company require that?

A. Yes, sir; from one room to another.

Q. And about how often do you make those breakthroughs?—at what points as you get farther into the hill?

A. Well, you fetch them in, may be, about seventy-five feet.

Q. That is on both sides of the room, is it?

A. Sometimes they do and sometimes they are just on one side.

Q. Well, why do you make them sometimes only on one side?

A. Well, you see one side may answer for that.

By Senator Kidd: Q. Where there are parallel rooms they have those breakthroughs, do they?

A. Yes, sir.

Q. At about every seventy-five feet?

A. Yes, sir.

Q. Well, suppose you had ten parallel rooms, would all of them be connected by the breakthroughs or would you alternate with each two?

A. All would have breakthroughs.

Q. The whole thing?

A. Yes, sir.

Q. Are those breakthroughs filled up or left open after you go by them?

A. They are always left open.

Q. Do you have a fire boss in this particular mine?

A. I do not know, sir, whether they do or not.

Q. Do they work there in the night time as well as in the day time?

A. Some nights they work there when they are behind in the company's work. They run the machines, sometimes at night, to cut the coal, you know.

Q. What is the name of the mine boss of this mine?

A. John Tasker.

Q. You say he is in and out every day?

A. Yes, sir; he is in there all the time.

Q. Does the mine boss go in in the morning and examine it, and meet you all at the entry and let you know each morning whether it is safe to go in or not?

A. No, sir.

Q. Do you go in there without being told it is safe?

A. Yes, sir.

Q. Without any notice posted at the entrance that it has been examined and is safe?

A. Yes, sir; a man just goes in there as he pleases.

Q. At his own risk?

A. Yes, sir.

Q. At the mouth of any room is there ever put up a danger signal at any time?

A. No, sir; not that I know of.

By Delegate Mitchell: Q. You have been made sick by the black-damp, or whatever you call it?

A. Yes, sir.

Q. You stated in your examination that you got sick after you went out, did you?

A. No, sir; I said when I felt sick I just quit and came out before I got too bad off. You can't get out if you wait.

Q. What were those peculiar sensations? What kind of sickness did you have?

A. I had headache and was just weak, you know.

By Senator Kidd: Q. A drowsy feeling?

A. Yes, sir.

By Delegate Mitchell: Q. Are you sure you got drowsy?

A. Yes, sir.

Q. At what period would this drowsiness manifest itself in your sickness?

A. It commences on you whenever that black damp takes effect on you; you commence then.

Q. There is no dizziness?

A. You can hear a ringing in your head.

Q. It would precede this headache—the ringing and dizziness—would it?

A. The ringing would come first and then your head would commence to ache.

Q. And under those circumstances frequently you feel a growing stupor or dizziness?

A. You feel kind of weak, you know. You know it gets all through your nerves.

By Judge Matthews: Q. How long did you say you had been working in this mine?

A. I have been working for Carvers for about six or eight months.

Q. And during this time you say you have come out twice on account of that?

A. Yes, sir.

Q. Did you tell anybody about it or did anybody ask you about it?

A. Yes, sir; I told the bank boss about it.

By Senator Kidd: Q. What did he do then to remove it, if anything?

A. He would say he would try to fix it.

Q. Well, did he?

A. Not as I know of.

By Judge Matthews: Q. Well, would you go in the next day?

A. Yes, sir; I would go back the next day.

Q. How did you find it, then, the next day?

A. I found it pretty good, then, the next day, and may be it would go on for a month before we would be bothered any more with it.

Q. So the two days that you went out you went in the next day and worked?

A. Yes, sir.

Q. And you found it all right?

A. Yes, sir.

Q. Do you dig that coal by the ton or by the car?

A. Well, they dig it by the ton but it is weighed by the bushel.

Q. You are paid by the bushel?

A. What we call a ton-turn—forty-five cents a ton-turn—but they weigh it by the bushel and instead of putting down a turn they just put down so many tons.

By Senator Kidd: Q. At that rate how much do you make a day?

A. Some days we make two and a half or three dollars and some days we do not make that.

Q. You make very good wages, though, do you?

A. Yes, sir; you can make tolerably good wages if you can get what cars you can load.

Q. Do they give you regular work?

A. Well, they work us pretty regular; sometimes it gets slack.

Q. Do you lay off then part of a day, or a few days at a time?

A. Sometimes we lay off three or four days at a time if we don't get any cars.

Q. About what part of the month do you work?

A. Some of the men work pretty much all the month; they hardly lose more than two days in the month on account of cars; but some months it is slacker than that.

Q. That is the railroad's fault, is it, that you don't get cars?

A. Yes, sir; I suppose it is.

By Delegate Strickling: Q. How many hours in a day do you do mine work?

A. Nine hours.

Q. And how many for the night men?

A. About the same.

Q. What mine did you work in before coming to this particular mine?

A. I worked up at the Sam Dixon mine just above there. Old man Major Gordon was running it before Dixon took it, and I worked up there about three years.

Q. Did you work there after Mr. Dixon got it?

A. Yes, sir; I worked there about three or four months after he got it.

Q. What was the condition of that mine as to dust?

A. That mine? There was right smart dust in that too; it was hot in there.

Q. Is it a hot mine?

A. Yes, sir.

Q. Was it sprinkled?

A. No, sir.

Q. Was this after Mr. Dixon got it or before?

A. It was before and after, too.

Q. What seam of coal were you working there?

A. We were working in the gas seam.

Q. What they call the gas seam—the Sewell coal?

A. The soft coal.

Q. Did you work on the day or night shift in that?

A. On the day shift.

Q. Was there any gas in the mine?

A. Well, I do not know about the gas. There was bad air in there just like there was in the rest of them.

Q. Now, about how long ago was it when you quit working there?

A. That has been about a year ago, now.

Q. Was it a drift mine or a shaft mine?

A. It was a drift mine.

Q. How was it ventilated? Did they have any fan?

A. Yes, sir; they have a fan in there.

Q. Where is the fan located—on the outside or inside?

A. It is right on the outside, down below the drift.

Q. Do you remember how many openings there are in that mine?

A. No, sir; I do not remember how many openings that has in it.

Q. What did you use to shoot with in that mine—powder?

A. Powder; yes, sir.

Q. Did you ever use dynamite?

A. No, sir.

Q. Did you ever have any explosion in that mine?

A. No, sir.

Q. Were you ever in an explosion in a mine?

A. No, sir; I never was in one.

Q. How many men were working in that mine at that time?

A. Oh, I guess there were about one hundred.

District Inspector Absalom: I have no questions in particular to ask, except as to the condition of the mine, which I know about, and the men who are in the mine with this witness know about. I have been through it from one end to the other and I consider it a superior mine, that conforms, or is regulated in conformity to the law, so far as it is concerned.

Delegate Duty: Ask him any questions you feel like asking him.

By District Inspector Absalom: Q. You say you work on the first right entry in the Mecca mine?

A. Yes, sir.

Q. Well, you never found any deficiency there, so far as ventilation or anything of that sort was concerned?

A. Yes, sir; there is bad air in that room where I worked, too, but it was not so bad as to stop me from work altogether.

District Inspector Absalom: The great trouble is there is no regulation as to driving breakthroughs and it depends upon the person who drives the room as to how often he will drive a breakthrough.

Senator Kidd: Don't mine inspectors prescribe some regulations and give some orders about these things?

District Inspector Absalom: They advise but not with authority, and the men refuse themselves to drive these breakthroughs.

Delegate Duty: Well, I think it is improper, now, to go ahead in that way. Argument ought not to be made in the testimony. Ask the witness whatever questions you please, pertaining to these things and then you can testify afterwards.

District Inspector Absalom: I was just giving information as to the conditions.

Delegate Duty: You can state that after while, if you desire to do so.

[Examination of witness resumed.]

By Delegate Strickling: Q: Were you ever asked to drive a breakthrough and refused to do it?

A. No, sir.

By Delegate Mitchell: Q. Are you ordered to make these breakthroughs or do you do it of your own accord?

A. After he tells me to drive the first one I drive that one, and then after I think I have got up far enough for another one I drive that myself, because that is for my own benefit.

By Senator Kidd: Q. How far are those rooms apart? Or, in other words, what thickness is left between parallel rooms?

A. Well, sometimes it is about fifteen feet, sometimes twenty and sometimes twenty-five.

Q. Now, are you paid extra for driving that breakthrough?

A. No, sir.

Q. You get the coal out of it and get pay for that coal?

A. Yes, sir.

By Judge Matthews: Q. Whom did you have reference to when you said "he tells me"?

A. The bank boss.

By Delegate Strickling: Q. Now, in driving these breakthroughs can you make as much money as while mining at the end of the room?

A. Well, you can drive that and your room, too, you know, but by just breaking through you could not load as much coal out of it, because you would not drive it more than eight or nine feet, you know, or hardly that.

By Judge Matthews: Q. So, I understand, while you are driving a breakthrough, you can also work in the face of your room?

A. Yes, sir.

Q. And do, do you?

A. Yes, sir.

Q. Are you generally able to keep up your shift in that way?

A. Yes, sir.

Q. You can keep up your run of cars?

A. Yes, sir.

By Chairman Garitan: Q. You spoke about there being considerable dust in that mine. How far was that from where you were working—the accumulation of dust?

A. The dust is just off on the entry from your room.

Q. Well, how far?

A. You just go up in your room off of the entry, and seventy-five or one hundred feet from where you are working the dust would be, and when you come out you strike the dust on the entry.

Q. Would there be much dust on the entry?

A. On the main entry there is more dust than on the other entries.

Q. Well, was there much dust near where you were working?

A. No, sir; there would not be much near where we were working.

By Judge Matthews: Q. I believe you did state that some entries were wet?

A. Yes, sir; some of them are damp.

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CHARLES BESS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Charles Bess.

Examination by Delegate Duty:

Q. State your name?

- A. Charlie Bess.
- Q. What is your occupation or calling?
- A. I am a coal miner.
- Q. How long have you been mining coal?
- A. Well, I have been mining—not regularly but off and on—for the last eighteen years.
- Q. Where have you worked?
- A. I have worked all along the river here. I have been working for the last year on Gauley for the Lynchburg Colliery Company.
- Q. What mines have you worked in along the river?
- A. Well, I have worked over here at the National and at Four Mile; Marting is the name of the place.
- Q. Any others?
- A. Yes, sir; I have worked a short time at others, not a great deal, though.
- Q. Where have you worked during this long period as a miner?
- A. First one place and then another; I have been right smart of a traveler.
- Q. Any other places besides the mines in West Virginia?
- A. No, sir; I have not been out of West Virginia.
- Q. What fields in West Virginia have you mined in?
- A. Along up and down the river, here, first one place and then another.
- Q. How long have you been working in this particular mine that you are now working in?
- A. I have been working there since this last March a year ago.
- Q. How many entries are there in that mine?
- A. Indeed, I do not know exactly how many entries there are.
- Q. Is it a drift mine?
- A. Yes, sir. Let's see; they have got three drifts open.
- Q. How long has the mine been open?
- A. I do not know exactly; I suppose it has been open about five or six years, from what people tell me over there.
- Q. How many men are there working in the mine?
- A. I do not know exactly; I suppose, though, we have between forty and fifty miners there.
- Q. You may state the condition of the mine as to dust or dampness.
- A. Well, sir; we have good air there. They drove through the hill close to the top of the mountain in several places, and there is natural ventilation in most of the mines.
- Q. Now, as to dampness or dust; how is that?
- A. Well, that is good; they haven't any.
- Q. About how far is it through the hill?
- A. Well, I do not know exactly; it is not very far, because you can see right through from one side to the other; it is but a short distance.
- Q. They do not have a fan there then?
- A. No, sir; not on the part I worked on. Over in the hill they have an opening, but they have good air over there, too.
- Q. Is it natural ventilation where you work?
- A. Yes, sir.
- Q. Do they ever sprinkle the mine?
- A. No, sir.
- Q. It is damp enough to keep the dust down, is it?
- A. Yes, sir; I never saw any dust in that mine at all. It is all pick work; there are no machines there.
- Q. What is your superintendent's name?
- A. The. Deitz.
- Q. Can you give the name of your mine boss?
- A. Grissenger is his name.
- Q. Well, do you have a fire boss there?
- A. No, sir.
- Q. Do you mine by pick or machinery?
- A. By pick.
- Q. What do they give you for mining?

A. Forty-five cents a ton.

Q. What do the miners make generally?

A. Well, I could not say what we make on an average; that would be pretty hard to tell. Some make very good money and some do not make so much.

Q. About how much do you make?

A. Well, I make from sixty to seventy dollars a month, by working hard.

Q. How often are you paid?

A. Every two weeks.

Q. In what manner are you paid—by cash, checks or scrip?

A. Well, what we don't draw in scrip we get in cash.

Q. Well, are you permitted by the mine operators to complain when you have a grievance?

A. Why, I suppose we are; I have never heard of any grievances since I have been there, to amount to anything. Things seem to go along pretty smoothly over there at that place.

Q. You have never heard of any one being discharged for complaining?

A. No, sir; there has not been but one man discharged since I have been there.

Q. Do you know why he was discharged?

A. Well, I think one day they didn't run and they all went to church. They didn't put in any cars so they could run, and he started to raise a kick about it.

Q. Are you required to deal at the company's store alone?

A. No, sir.

Q. You are at liberty to deal where you please?

A. Yes, sir.

Q. Can you get goods at the same price at the company's store that you can get them elsewhere?

A. No, sir; not exactly. Some things we can get about the same as we do at outside stores and some things are a little higher.

Q. Can you take your scrip and deal at any other store?

A. No, sir.

Q. Is that true of the other companies you have worked for?

Witness: Sir?

Q. Is the same thing true of the other companies you have worked for, with reference to stores and your dealing?

A. Yes, sir; all stores; where I work we have the right now to deal where we please.

Q. Now, as to prices?

A. Well, the other stores I have dealt at are generally a little higher than where I am now, on most things.

Q. And they charge you a little more generally at the company's stores than is charged at other stores?

A. Yes, sir; they are generally higher than at the other stores.

Q. Well, are you a married man?

A. Yes, sir.

Q. Do you live in a house belonging to the company?

A. Yes, sir.

Q. What rent do they charge you?

A. Five dollars.

Q. What kind of a house do you live in?

A. They have very good houses; I can't complain of the house.

Q. Do you know the rule those companies there rent by?

A. No, sir; I do not.

Q. How many rooms are in your house?

A. Four.

Q. And they charge you five dollars?

A. Five dollars; most places they charge six for a four-room house.

Q. Are you taxed anything for hospital?

A. Yes, sir; fifteen cents a month.

Q. How much do you have to pay for a physician?

A. One dollar a month.

Q. Do they give your family treatment as well as yourself?

A. Yes, sir.

Q. Have they a good physician in the community?

A. I suppose he is very good. Some like him and some don't.

Q. Do the miners employ him generally in their families?

A. Yes, sir.

By Senator Kidd: Q. What do they charge you for the coal that you use in your house?

A. They charge us one dollar a month and fifty cents a load for hauling.

Q. A dollar a month for all you use, and if you use ten loads they charge you fifty cents a load?

A. Yes, sir.

Q. What seam are you working?

A. No. 2.

Q. Is it splint or gas coal?

A. It is gas coal.

Q. Is there any gas in that mine?

A. No, sir; I never heard of any being over there at all.

Q. Do you all belong to what is known as the "union"?

A. I organized one last night. That was my business here today.

By Delegate Strickling: Q. In relation to these company houses: Do you have a written lease?

A. No, sir; we do not there. They never presented any to me.

Q. Did you ever work any place where they had a written lease?

A. Yes, sir; they had one at Marting.

Q. Were there any conditions attached to that lease that you should do certain things for the company or they would throw you out?

A. No, sir; all the leases had in them was that you were to give up the house in a certain length of time after you ceased work.

Q. There were no agreements then that you should do certain things or you would forfeit your lease?

A. Not that I know of.

Q. How often is the mine inspector around at this mine?

A. I do not know; he has been there pretty often—up there around our place.

Q. Who is your district inspector?

A. Mr. Henry, I think.

Q. What if anything has the department of mines done towards enforcing the law in relation to the mining laws, that you know of? I mean the mine inspector.

A. Well, he came there awhile back but I was not in the mine—I was down at the foot of the hill—and he enforced a right smart of law there, I think. He caught several of them carrying in powder unlawfully, and "jacked them up" and it made them kind of careful.

By Senator Kidd: Q. Are they permitted to make solid shots?

A. I have heard of some shots off of the solid.

Q. What are the company's rules about that?

A. The company kicked on it for awhile but I do not think there is any kick now. I do not see any notice to that effect.

Q. Is solid shooting going on now?

A. Yes, sir; I think right smart of it is going on, now.

By Delegate Strickling: Q. Prior to the mine inspector's regulating the amount of powder in the mine, how much powder did you take in at a time and how did you take it in?

A. Before he came there I think they just took it in by kegs, or any way they could get it in.

Q. How much do they take in now?

A. They take in five pounds.

Q. That was the rule adopted by the inspector?

A. Yes, sir; to take in a five-pound flask.

Q. Was anybody arrested for violation of any of these rules or for violating the law?

A. Yes, sir; I saw the constable have a great crowd of them there taking them down the road.

Q. Were there anybody besides miners, that you know of?

A. Yes, sir; the bank boss, I think, was in the crowd.

Q. How long ago has that been?

A. Indeed, I do not know; it has been but a short time ago, though. I could not say exactly when it was, but it has been but a short time.

Q. By this regulation the danger in the mine there is minimized or made less, is it? I mean by taking in a less amount of powder.

A. Yes, sir; I suppose it is.

Q. Have you any instructions in relation to shooting off the solid?

A. Well, we did have there. Something near a year ago the company stuck up a notice if they shot any off of the hard they would not pull the coal for them.

Q. That was the penalty?

A. That was the penalty.

Q. Are there any rules or regulations now?

A. No, sir; it very soon got old and they went back and shot off of the hard, I think.

Q. Have you read the new mining laws, or have you had a copy?

A. No, sir; I haven't got hold of one yet. My brother had the bank boss's the other day but I did not get a chance to look at it.

Q. Well, now, as to the other mines you worked in prior to this mine: did you find any of them gaseous or dangerous?

A. About the only mine I worked in that was gaseous, I believe, was at Marting.

Q. Is there any dust to amount to anything in that mine?

A. There was at that time but then they went to sprinkling. They had a little kind of a blow up one day and they went to sprinkling and they have never had any trouble since, that I know of.

Q. That was about how long ago?

A. That was about three years ago.

By Judge Matthews: Q. You never have been in an explosion, have you?

A. No, sir.

Q. Do you know anything by experience about foul air or black damp?

A. Very little. I have worked around so little of it that I do not know much about it.

Q. Are you acquainted with most of the miners in the mine where you work?

A. Yes, sir.

Q. Have you ever heard any of them complain about any in that mine?

A. No, sir; all of them say it is perfectly safe—that it is so far on the hill that it is safe.

By Delegate Strickling: Q. Do you consider it dangerous to shoot off the solid?

A. I do not consider it dangerous for a man who understands his business.

Q. Would you consider it dangerous if there was any gas or dust in a mine to shoot off the solid?

A. Yes, sir; I would.

Q. I believe you said there was no gas nor dust in this mine?

A. I never heard of any gas or dust in this mine; no, sir.

THOMAS COSGROVE, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Thomas Cosgrove.

Examination by Delegate Duty:

Q. What is your occupation?

A. I follow coal mining.

Q. Are you a common miner or are you a boss?

A. I generally work at most any of it. I have worked at everything around a coal mine.

Q. Have you been a mine boss?

A. Yes, sir.



- Q. Are you now?
- A. No, sir; I am not working any place at the present time.
- Q. How long has it been since you were at work?
- A. Since before Christmas. I was sick all this last winter.
- Q. How long have you been engaged as a miner?
- A. About fifteen years.
- Q. Where have you mined during that period?
- A. In Pennsylvania, Ohio, Indiana, Alabama, West Virginia and Missouri.
- Q. How long have you mined in West Virginia?
- A. Four years.
- Q. In what mines have you worked in West Virginia?
- A. In the Carbondale mine or No. 111 and No. 112 of the Sunday Creek Company's mines, and the Boomer Coal and Coke Company, and at Marting, and at the Columbus Coal Company's No. 1 mine at Vaughan.
- Q. Where did you last work?
- A. At the Carbondale mine—No. 111 mine of the Sunday Creek Company.
- Q. How long did you work there?
- A. A year.
- Q. Where is that mine?
- A. About a mile and a half from here, across the river, on the other side.
- Q. In the Kanawha field?
- A. Yes, sir.
- Q. What is the condition of that mine as to openings?
- A. It is very good; it has four openings.
- Q. What is the condition of the mine as to dust and dampness?
- A. Why, it is a very dry mine and very dusty, but it is kept sprinkled all the time.
- Q. How often do they sprinkle it?
- A. About three days in a week, or three nights in a week, rather.
- Q. By sprinkling it two or three times a week does that keep it in fair condition as to moisture?
- A. Yes, sir.
- Q. In such condition as to be considered safe to work in?
- A. Yes, sir.
- Q. In what manner do you mine there—by pick?
- A. By machinery.
- Q. Machine work causes more dust than pick work—does it not?
- A. Yes, sir.
- Q. Do you know whether the men in the mine were permitted to shoot off the solid?
- A. No, sir; they were not.
- Q. What was the instruction as to that?
- A. All the instructions ever I heard was to not shoot anything off the solid.
- Q. Suppose they were found shooting off the solid, what would be done?
- A. Well, I do not suppose there would be anything done.
- Q. It was simply a demand without any enforcement, was it? Did they generally obey it?
- A. Yes, sir; as a general thing.
- Q. Did you ever have any accidents in the mine?
- A. There was one while I was there; it was just a small one; a driver slipped off of a car.
- Q. Was there any explosion of any kind?
- A. No, sir.
- Q. Were they permitted to use dynamite in the mine?
- A. No, sir.
- Q. What explosive was employed?
- A. Powder.
- Q. How much did they take in?
- A. They all had orders not to take in over six pounds.
- Q. Was that obeyed?
- A. Yes, sir; it was enforced.

Q. In what manner was it enforced?

A. By the mine foreman. While I was there if he caught any of them he sent them out of the mine. He said if he caught any of them with more powder than that he would send them out.

Q. Were you employed as inside boss while you were there?

A. As inside boss.

Q. How often did you visit the miners while engaged in there?

A. Well, sometimes once or twice a day, and sometimes I would be around a dozen times; that is, if the mine was working.

Q. Did you give them any instructions about shooting off explosives during those visits?

A. No, sir.

Q. Did you ever discharge any of the men for disobedience in the use of powder?

A. No, sir; I never found them disobeying. They all knew their business—that is, at that mine.

Q. And you never found them disobeying?

A. No, sir.

Q. Did you find them disobeying in carrying in more powder than they were allowed to take in?

A. Yes, sir; one or two.

Q. What did you do with them?

A. I sent them out.

Q. How long did you keep them out?

A. Just as long as they had the powder with them. I did not allow them to take in that amount of powder.

Q. You permitted them to return right away, then?

A. If they had the right amount of powder with them.

Q. Did they use any other explosive than powder to blow the coal down?

A. No, sir.

Q. Were the men allowed to complain in case they had an alleged grievance?

A. Yes, sir.

Q. Were they discharged for it?

A. No, sir.

Q. Are you a married man?

A. No, sir.

Q. Do you know anything about the rules the company lease or let their houses on?

A. I believe the leases run this way: After a man ceases working for the company, that inside of ten days he is to give up the house to the company.

Q. What price are these people charged?

A. Six dollars a month for a four-room house.

Q. And how high are the other houses?

A. They do not have any others, except two houses, with over four rooms.

Q. Well, for those that have more than four rooms what would they charge?

A. I do not know what they charge, but I think they charge as a rule about a dollar and a half a room. I am not sure that is the rule, but I think it is.

Q. What was the condition of the mine as to air?

A. It was very good when I left there.

Q. How was the air conducted through the mine?

A. By a fan.

Q. What was your order with reference to the casing up of the crossings?

A. They were closed up immediately, as soon as connection was made.

Q. You saw to that, did you?

A. Yes, sir; we kept a man for that purpose.

Q. Do you know whether or not the air at all times was conducted up to the faces?

A. Yes, sir; unless it just happened for a day or so that the man could not get around because of building brattice some place else. Whenever he was away building brattice at one place, they might be waiting for him a day or two days, or something like that at another, and the air would not be right at the face of the working, and they would have to wait until he could get to it.

- By Delegate Strickling: Q. How often do the mine inspectors visit your mine?
- A. I think while I was there he was there three or four times.
- Q. Did he give any orders about what he wanted done?
- A. Yes, sir.
- Q. Were any pains taken to obey the orders of the mine inspectors?
- A. Yes, sir.
- Q. Which one of the inspectors visited your mine?
- A. Mr. Henry.
- Q. It was in his district, was it?
- A. Yes, sir.
- Q. Do you know anything about whether or not the miners were required to deal at the company's stores alone?
- A. No, sir; they were not.
- Q. Were they permitted to deal wherever they pleased?
- A. Yes, sir.
- Q. How often were the men paid?
- A. Twice a month.
- Q. In what manner were they paid?
- A. Just the same as all the rest—in cash if they hadn't dealt it out of the store in scrip.
- Q. They were permitted then to buy scrip and deal at the stores?
- A. Yes, sir.
- Q. Were they charged the same prices for commodities at the stores as were charged elsewhere?
- A. Outside of what I bought myself I could not say.
- Q. So far as your knowledge extends?
- A. No, sir; they could not.
- Q. They were a little higher at the company's stores?
- A. Yes, sir; but some things you could buy as low as you could outside.
- Q. Would this scrip be redeemed at any other store?
- A. If it was the same company—at any other of the company's stores.
- Q. Could it be traded at any store?
- A. No, sir.
- Q. They would only redeem it at one of their own stores?
- A. At one of their own stores.
- By Delegate Strickling: Q. What nationalities were the miners?
- A. Italians and Americans, and I believe they had a few Huns.
- Q. About what percentage were Americans?
- A. About two-thirds of them.
- Q. Well, now, in relation to the company's stores; the men didn't have to take out this scrip?
- A. No, sir.
- Q. If they waited until the end of the two weeks' period they could get the money?
- A. It was a matter of whether they wanted to take it or not.
- Q. If they dealt it all out well and good, but were they at liberty to deal any place they wanted to?
- A. Yes, sir.
- Q. How did they at this mine get men? I mean, would they go to New York and places like that and import men?
- A. No, sir; they never imported any men to my knowledge. Just what men came there we hired at the mine.
- Q. In regard to shooting off the solid, do you regard it as dangerous?
- A. Well, it depends upon the place mined and the man who does it whether I would consider it dangerous or not.
- Q. Has shooting off the solid any tendency to create dust in a mine?
- A. Yes, sir; but not as much as machine work.
- Q. Well, in machine work, of course, there is no fire, but in shooting off the solid it creates dust, and if the shot does not explode properly and blows out, it makes a blast in shooting off the solid?
- A. Yes, sir.

Q. Did you ever have any explosion caused by shooting off the solid?

A. I have been knocked down by it, I guess, but not in this State.

Q. What do you mean by "depending on the places mined" in shooting on the solid?

A. If it is a dusty mine, if a man gets the wind of a blown-out shot, it is dangerous; or if a man does not know about it or does not understand shooting off the solid. As far as shooting off the solid in this State is concerned, I never had any experience in this State in shooting off the solid, but I have in other States.

Q. What States were those?

A. Alabama, Indiana and Ohio.

Q. What seam of coal were you working in this State?

A. No. 2, I believe.

Q. What is the name of that? What do they call it?

A. No. 2, Kanawha.

Q. Was that the seam that is known as splint coal?

A. There were two kinds of coal in it—a gas coal and a hard coal.

Q. Was this mine worked in gas or hard coal?

A. It was generally considered a gas seam. There are eighteen to twenty inches at the top; they separate.

Q. Is there any more danger in shooting off the solid with dynamite than there is with powder?

A. Not necessarily so, if a man is experienced in it.

Q. Is there any greater danger in using dynamite in a mine than powder?

A. Yes, sir.

Q. Why is dynamite more dangerous than powder?

A. Because it is easier set off. It takes fire to set powder off, but dynamite can be set off by a shot.

By Judge Matthews: Q. You mean by concussion?

A. Yes, sir.

By Delegate Strickling: Q. In shooting off the solid would the shooting with dynamite create more dust than shooting with powder?

A. I do not think so.

Q. Which makes the larger hole after shooting—dynamite or powder?

A. Powder.

Q. Dynamite has a tendency to pulverizing?

A. Yes, sir.

Q. Then it would make more dust?

A. It makes the coal finer and that would have a tendency to make more dust.

By Judge Matthews: Q. At any of these West Virginia mines you have mentioned, do you know of them using what they call "pass books," or do they use scrip?

A. Scrip, entirely.

Q. Well, was the use of that scrip supposed to be for the convenience of the company, or the men, or both?

A. Well, they claim it is for the benefit and convenience of both.

By Delegate Strickling: Q. In other States have you had any experience in the use of scrip? Do they use it the same as they do in this State?

A. Yes, sir; in Alabama they use it some.

Q. In Ohio do they use it?

A. I saw two places in Ohio where they used it, was all I ever saw.

Q. And about the same rules in relation to scrip prevail there as do here?

A. In Alabama they do. There are one or two places in Ohio that are on the border of this State where I saw it used, but I do not think I ever saw it used up in the State of Ohio.

Q. How do they get credit in the State of Ohio?

A. In the northern part of the State of Ohio they do not have any company stores, as a general thing. They generally use a pass-book of account, in some way, where they do have them.

Q. And that is taken to any store?

A. No, sir.

Q. How do they get credit—on that?

A. No, sir; they generally get it on their own credit.

Q. Now, in getting goods or credit on that pass-book, are you required to pay anything more than the labor performed?

A. No, sir.

Q. Does the company charge anything for the extra book-keeping, on account of this pass-book, for the advancement?

A. No, sir.

Q. Supposing when the company was called upon to advance you anything more than might be coming to you on account of your services, would they charge you anything for that?

A. It just depends on who it was and whether they felt disposed to give it to him.

Q. If they did give it to you would they charge anything?

A. As a general thing for the use of their men they would charge a certain amount.

Q. More than ordinary interest?

A. No, sir.

Q. Now, which is the better, in your opinion, for the miner—the scrip or the pass-book?

A. Well, I would hardly know which to say.

Q. Did this same practice prevail in the State of Ohio in relation to saloons? Witness: In what way?

Q. The pass-book?

A. No, sir.

By Judge Matthews: Q. You stated awhile ago that the prices at the company stores were generally a little higher than at other stores?

A. Not everywhere; no.

Q. Well, at this particular mine, where you were working up here: The question is, was that on everything in general or do you remember any special article?

A. Well, no; I do not remember any special article; just a general thing; it was about all the same price.

Q. You have stated, now, they are all generally about the same price—that is, in the company's stores and the other stores?

A. Well, there is very little difference between them.

Q. I believe you stated that they sprinkle that mine about three times a week?

A. Yes, sir.

Q. Did you state that you were mining coal there, or bossing, at that time?

A. I was bossing at that time.

Q. Was it the rule to require all men working in the rooms to drive cross-ways for air?

A. Yes, sir; every one hundred feet. They were measured off every hundred feet and as soon as they drove up one hundred feet they would break through.

Q. And that rule was followed strictly, was it?

A. Yes, sir; those were the orders of the company.

Q. How much of the time did they generally work, at that time?

A. Well, they worked about two-thirds of the time.

Q. Why didn't they work more?

A. They didn't have cars. It was lack of cars that kept them from working.

By Delegate Mitchell: Q. In regard to the use of scrip and the pass-book: you say you know of no real difference?

A. Well, it just depends on the person whether there is any difference or not. Some people in this world if they have a pass-book don't know what they are spending until they come to pay; and if they have got scrip it is different.

Q. Is that scrip negotiable?

A. Not in this State. I have seen it in Alabama where it was.

Q. Men in this State are not in the habit of selling the scrip at a discount in order to realize cash for it?

A. Oh, yes; some men do that.

Q. They negotiate it?

A. Oh, yes; in that way.

Q. That would be profitable by the pass-book system? That sacrifice would be profitable by the pass-book system, I mean?

A. They would not have the scrip to sell if they didn't have it.

By Chairman Gartlan: Q. You say in the North of Ohio they haven't any company stores?

A. In one or two places they have.

Q. Where they haven't any company stores of course they don't use any scrip. Is that the understanding?

A. No, sir.

Q. Suppose a man is "broke" and wants a little advance there, does he get it?

A. No, sir.

Q. Well, do you think the use of scrip would be an advantage to the men?

A. That is a matter I never studied so as to be able to give an opinion on it.

Q. What I mean is, if you would go to work for a company and hadn't anything to buy clothes, supplies or anything of the kind, and the company would issue you scrip—which of course is credit—so that you could prepare yourself to go to work, do you think that would be an advantage to you?

A. Some do that and some don't.

Q. I mean if they should do that, if this advance from the company to the company stores is an advantage to the miner or not?

A. In my opinion it is a disadvantage to the miner, because it would simply teach him that in the future he would have to retain something of his own so he would not need any advance.

Q. But provided he didn't have anything at all, how would he get started where they didn't have company stores, supposing he was "broke"?

A. He would have to do like any other man would do—hunt a friend of some kind.

Q. Well, but wouldn't there be an advantage then in having company stores?

A. It depends on how a person looks at it. I look at it the other way; I do not think it is an advantage.

Q. Occasionally working men "go broke," through fault of their own in throwing their money away. But if a man who has been sick is out of work—in a case of that kind wouldn't a company store be a benefit?

A. Well, it just depends. If his company would give him anything to do—if he was a straight kind of a man and a good man, they certainly would give him something anyhow.

By Judge Matthews: Q. Generally do these miners have credit at these other stores outside of the company stores?

A. Yes, sir; as a general thing.

Q. They run "on tick" there, do they—get goods on credit?

A. Yes, sir; there are very few of them but what can come around to any of these stores and get what they want, whether they have money or not.

Q. But they always trade for cash, there, and generally pay up in cash?

A. Yes, sir.

Q. How long were you a mine boss at that place?

A. A year and two days.

Q. Did you find any black damp in that mine while you were there?

A. No, sir.

Q. You say you never had any occasion to put up any notices?

A. No, sir.

Q. Did you ever find any explosive gas there?

A. No, sir; not in that mine.

ADDISON PROCTOR, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Addison Proctor.

Examination by Delegate Strickling:

Q. Where do you work?

- A. At the Cannelton mines.
- Q. How long have you worked at that mine?
- A. About thirty years. I am an old residenter.
- Q. What seam is that?
- A. No. 2
- Q. What is that known by—as the gas seam?
- A. Yes, sir.
- Q. How thick is the vein?
- A. Six feet. It runs about five and a half to six feet.
- Q. How many men are they employing in that mine at this time?
- A. I suppose from seventy-five to one hundred. I do not know exactly what number is there.
- Q. Is there any explosive gas in that mine?
- A. No, sir; I think not.
- Q. Did you ever know of any being in that mine?
- A. No, sir.
- Q. Is there any dust in that mine?
- A. There is a little bit, but not enough to amount to anything—not enough to cause an explosion I do not suppose.
- Q. Is the mine ever sprinkled for dust?
- A. They have not been sprinkling lately. They used to sprinkle them a little at these partings—that is, where they haul it in with the mules and then the motor comes in and takes it. It is where branch entries come together.
- Q. In what capacity are you employed in the mine?—as a miner?
- A. As a miner; yes, sir.
- Q. You say you have been mining about thirty years in that mine?
- A. Yes, sir. Not exactly in that mine but I have worked for that company.
- Q. How many mines has that company?
- A. Only one at present.
- Q. What do you use in undercutting—a machine or pick?
- A. It is partly machine and partly pick coal.
- Q. What explosive do you use in knocking down the coal?
- A. Powder.
- Q. Did you ever use dynamite?
- A. No, sir; none in the world. I never knew of any one using any without they were shooting a sump hole, in water.
- Q. A sump hole is just where it is wet?
- A. Yes, sir.
- By Delegate Strickling: Q. Has dynamite been used at the direction of the company?
- A. Yes, sir.
- Q. What regulation, if any, have you or the miners in relation to the amount of powder they take in the mines?
- A. Well, under this last act of the legislature they just take in about five pounds, I believe.
- Q. Has that been enforced in your mine?
- A. Yes, sir; they do not allow any one to take in any more than that.
- Q. Who enforces that?
- A. I suppose the bank boss has got that authority, and if he sees any one with more powder he notifies them not to take it in.
- Q. Who called the attention of the miners to that—the bank boss?
- A. Well, I suppose the miners all understood it after the law was passed, if they had sense enough to read a little.
- Q. Since the law has been passed has the rule been violated, that you know of?
- A. Not as I know of; no, sir.
- Q. Prior to that time did the men take in more or less powder?
- A. Yes, sir; sometimes they did. They generally had a five pound can to take the powder in; and with these machines they would take in about a keg. It took nearly a keg to shoot two or three cuts-down.
- Q. Does it make it more dangerous to the miner in taking in powder in large quantities of a regulation amount?

A. I do not know as it would without some accident happened with the wire, or something.

Q. What do you mean by "the wire"?

A. The wire that extends into the mine, you know.

Q. The motor wire?

A. Yes, sir.

Q. They have motor cars in this mine, have they?

A. They have a motor that pulls the bank cars.

Q. What regulation have you in relation to shooting off the solid?

A. Well, they did shoot in the solid there at Cannelton, a right smart while, but they have stopped it now, I think.

Q. Do you know what stopped it?

A. I think the superintendent stopped it. He claimed it was creating too much dust, and he was afraid of explosions, or something like that.

Q. As a miner could you say whether or not it creates more dust to shoot off the solid?

A. I suppose it would; yes, sir.

Q. Is there any other danger attaching to shooting off the solid besides creating dust?

A. No, I do not know as there is.

Q. You say they have not shot off the solid since the new regulation went into effect?

A. Not as I know of.

Q. Is that posted—that inhibition?

A. They had it posted at the mouth of the mines awhile but I do not think it is there now.

Q. What penalties are attached to a miner disobeying the rules?

A. He is said to be discharged, but I do not know how that is. I do not know whether they discharge him or not.

Q. Is this mine operated by union or non-union men?

A. Union, I suppose; they all belong that work there.

Q. How are you paid for mining?

A. Forty-five cents a ton for pick work and twenty-seven and a half for some machine coal, and then I believe they pay as high as thirty-nine cents for some of it.

Q. How many hours does a miner work?

A. He generally works just as he pleases. Nine hours is the system there, I suppose.

Q. Is that the same system as on the night shift?

A. I suppose so; yes, sir.

Q. You have a night shift, have you?

A. No, sir.

Q. About how much would a miner make working nine hours a day in this mine?

Witness: That is, if he could get all his work out?

Delegate Strickling: Yes.

A. Two and a half or three dollars a day, I reckon; may be more some days.

Q. How are you paid?

A. Every two weeks.

Q. How are you paid?

A. In money or currency.

Q. Are there any restrictions as to how you shall spend the money?

A. No, sir; not at that company.

Q. Are there any company stores at this mine?

A. Yes, sir.

Q. Have they anything like scrip that they issue to the miners?

A. Yes, sir; they use scrip there.

Q. May a miner use this scrip in any place except the company's store?

A. At the saloon they can use it. They deposit the check with the saloon and get whisky for it, but they take off thirty cents, I believe on the dollar. The saloon gives seventy cents worth of whisky for a dollar in scrip.

Q. Now, this scrip is redeemable, then, by the company, or redeemed by the company?

A. Yes, sir.



Q. Now, in purchasing goods with scrip do you pay more or less for goods at the company's store than you can get them for at outside stores?

A. You can't get any goods outside the company's store with scrip; and you can't get anything but whisky or Arbuckle's coffee, or something like that.

Q. Well, do you pay more for goods by using the scrip than if you had the money and were to buy them some place else?

A. Yes, sir; I suppose you would.

Q. Do you know that the company stores charge more than the independent stores?

A. They do some things; yes, sir.

Q. Now, do you know whether the company pays for the scrip at its face value, when it is used at a saloon, or does it simply pay the seventy cents?

A. No; they take it back, you know, and trade it for goods in the store. People go there to these saloons and buy it and get a percentage.

Q. People buy the scrip from the saloons and take it back and trade it at the stores?

A. Yes, sir.

Q. Will the company redeem this scrip for cash?

A. I do not know whether they will or not; I could not say.

By Delegate Duty: Q. I want to ask you this question: Can you state about how much it requires to start a miner in business, when he commences?

Witness: That is, you mean to get his tools?

Delegate Duty: To get ready to start him?

A. Nine or ten dollars, I suppose.

Q. Well, what does it cost the company to start him, now, and get him so that there will be money coming to him?

Witness: The company to start him?

Delegate Duty: Yes, I mean this: How much money would it require to start a man in the business of mining so that he will have money coming to him from the company? How much will he have to expend before he has anything due him? In other words, if a miner starts the first of the month, how much would he require, taking into consideration the price of tools, the price of his feed, and the support of his family, if he had any? How much would the company have to invest before that miner would be entitled to pay?

Witness: You mean to come there without anything—without any tools?

Delegate Duty: Yes, sir; that is what I mean.

A. Well, it would be about twelve or fifteen dollars, I reckon.

Q. That is, outside of his tools?

A. No, including the tools, I mean.

By Mr. Nugent: Q. In other words, when you start on the first of the month you work from the first to the fifteenth and receive no money until the last Saturday in the month?

A. Yes, sir; that is right.

Q. Consequently you would have to keep yourself from the first of the month until the last of the month before you would have any money coming to you?

A. Yes, sir.

By Delegate Duty: Q. Will your other answer hold?

A. I would suppose it would cost fifteen or twenty dollars.

Q. My question was if you were to come without anything at all, and you were to buy your tools, and get something to do, how long would be the delay before you would be earning enough to keep you?

A. It would be different: some have larger families than others. If a man just had a wife and himself it would not take so much.

Q. Say an ordinary family of about five?

A. It would take from fifteen to twenty dollars to put him on his feet.

Q. He would have to have that much credit from his company?

A. Yes, sir; that is for the tools and everything.

By Delegate Strickling: Q. How many openings were there in this mine?

A. Just two; one where the fan is and one at the drift mine at Cannelton.

Q. How is this mine ventilated—with a fan?

A. Yes, sir; with a fan.

Q. How is the ventilation in this mine?

A. Right good.

Q. Did you ever have any trouble with black damp, as they call it?

A. No, sir.

ALFRED MORROW, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Alfred Morrow.

Examination by Delegate Duty:

Q. What is your occupation?

A. I work in the mines.

Q. How long have you been working at mining?

A. Well, I have been working around for the last five years.

Q. Where have you worked?

A. At Carbondale, National, Four Mile and Cannelton. I have been there twice; this last time makes twice; and I worked a little over at the Diamond, but not very much.

Q. Have you worked at any other mines?

A. I worked down here at Moore's and I worked a little bit at Hugheston.

Q. Are you a citizen of West Virginia?

A. Yes, sir.

Q. Have you done all your work as a miner in West Virginia?

A. Yes, sir. Well, now, I did work a little bit in Ohio—when we had a strike here—for four months. My brother and I went down there and I worked a little while, but we did not work long because we could not make our board. There were too many down there for us.

Q. Tell me where you are working now?

A. At Cannelton.

Q. How long have you been working at Cannelton?

A. I have been there this last time six or seven months.

Q. How long did you work there the first time you worked for them?

A. About the same.

Q. How long a space of time was there between the two times you were working there?

A. Well, it was about two years, I think, or something like that.

Q. How did you come to leave them the first time?

A. Well, I had a contract to cut coal there and they wanted me to cut it at night, and it wasn't that way. When I went there I took a contract to cut it in day time, but they wanted us to do it at night and we just quit.

Q. Now, what is the condition of the mine as to dampness or dust?

A. Well, it is pretty fair, I think. I was not down in the hole, as they call it, but once. It is a right smart way down.

Q. Is it a drift mine?

A. Yes, sir.

Q. Is there any dust in the mine?

A. Yes, sir; there is some in 24 parting.

Q. How many openings are there in this mine?

A. One is all I know of, and the air course.

Q. Including the air course there are two openings, then?

A. Yes, sir.

Q. How many men are working in the mine.

A. Well, I could not tell you exactly but there are close to one hundred, I reckon, or something near that.

Q. If I understand you part of this mine is damp and part of it is dry?

A. Yes, sir.

Q. Now, how much dust is there in the dry part of the mine, if any?

A. Well, on 24 parting it is about three or four inches.

Q. Well, now, what is done, if anything, with reference to dampening that or making it moist?

A. There isn't anything that I know of.

Q. Do you mean to say the mine is not sprinkled at any time?

A. No, sir; it is not.

Q. Who is your superintendent?

A. Mr. Arthur Morris.

Q. What is the name of your mine boss?

A. Neal McCafferty.

Q. You may state whether or not any of the State mine inspectors have been there during your stay?

A. Yes, sir; that gentleman over there—Mr. Henry—has been there.

Q. How often has he been there?

A. I believe he has been there twice since I have been there.

Q. You may state what, if anything, he did with reference to having that mine properly conducted?

A. Well, I think he did all he could do. I was running a machine over there, cutting for these men, and I heard him talking pretty rough to the bank boss because he hadn't given air to the men in the mine. There were two breakthroughs, and he told him he wanted the lower one stopped up and the air put in to these men and that he wanted it done right away.

Q. What was the condition of the air at the place the men were working, at this time?

A. It was pretty tough.

Q. Did they take any steps?

A. Yes, sir; he went ahead and closed it up.

Q. He obeyed him?

A. Yes, sir.

Q. What effect did it have after that had been done?

A. Well, that is pretty good air they have there.

Q. Do you know whether or not he gave any instructions about any other part of the mine?

A. No, sir; that was all I heard, because I was in a hurry to get to the place where I was cutting.

Q. Your business is cutting?

A. Yes, sir.

Q. You may explain what explosive is used in the mine to knock the coal down?

A. I haven't seen them use anything but powder.

Q. How much powder are they allowed to take in the mine at a time?

A. Well, some of them take as much as ten pounds. I know I haven't seen any one take in any more than that.

Q. Well, when did you last see them take as much as ten pounds?

A. Oh, it has been about a week or ten days, I reckon.

Q. What did the mine boss say, if anything, about taking in the ten pounds of powder?

A. Well, he is not right there at the drift mouth when the men go down, but he is up at the tippie, and sometimes he will make parties come up on the tippie. The steps go right around by the shop.

Q. What orders has he given with reference to taking powder into the mine?

A. I haven't heard him give any.

Q. He never told you to take a certain quantity of powder into the mine?

A. No, sir.

By Senator Kidd: Q. Are rules posted at the entrance to the mine governing the amount of powder to be taken in—a little notice?

A. If there is I never noticed it.

By Delegate Duty: Q. Are the miners accustomed to shooting in the solid?

A. Why, they were there sometime ago, but then since Mr. Henry was there they stopped it and I haven't known personally of any one shooting off the solid since that but there has been some.

Q. They were shooting off the solid before he went there?

A. Yes, sir.

Q. Did he give any orders to have that stopped?

A. Yes, sir; he called Mr. McCafferty and told him it would have to be stopped, so Mr. McCafferty told me.

Q. Then, since then the rule has not been violated?

A. Not that I know of, but there has been some. At least they quit on account of that. Some of them quit because they would not let them shoot it down.

Q. Because they would not let them shoot in the solid?

A. Yes, sir.

Q. You may state how much you get per ton for mining that coal?

Witness: What do you mean, for cutting it?

Delegate Duty: Yes, sir.

A. We get six cents on top and seven cents on the bottom—that is, a ton.

Q. How much does the miner get by the ton, or does he get paid that way?

A. A pick miner gets forty-five cents.

By Senator Kidd: Q. What does a miner get after you make these cuts with the machine?

A. Well, it is twenty-two and something in the rooms, and some of the entries run twenty-nine and some of them thirty; that is, according to the slate; some of it is thicker than others. I worked in an entry there for awhile and got twenty-nine for mine.

Q. What is an employe able to make a day in doing this kind of work, on an average?

A. Well, a man can't make much more than two dollars and a half, taking it on an average, the way they run. I would not think, but I never paid so very much attention to it.

Q. How are you paid?

A. We are paid every two weeks. Of course you have to work a month, if you start in at a place, before you get any pay, and then it is every two weeks.

Q. In what manner are you paid? Are you paid with cash or checks?

A. We are paid with cash—the balance coming to us—if we don't deal it all out of the store.

Q. If you deal out of the store how do you get it? In what manner do you get the goods?

A. On scrip. You draw the scrip first and then you go to the store with it.

Q. Did you hear the testimony of the other gentlemen who testified as to the use of scrip?

A. No, sir; I did not.

Q. You may state whether or not the company redeems that scrip at any other place except its own stores at the place you work?

A. There is no place that takes it unless they discount it; I think it is thirty cents on the dollar.

Q. Where is that?

A. It is at some of the saloons over there. They have never got none of mine yet, but they have several over there.

Q. Do the saloonkeepers get money from the company for it or do they get goods?

A. No, sir; they either get goods or if someone comes along and offers them seventy cents in cash money for it they sell it. There are lots of them can do pretty well buying goods if they get ahead a few dollars. I haven't got ahead very much to buy mine that way, but a man can live tolerably reasonable if he gets goods on scrip that only costs him seventy cents.

Q. But that is due to the business capacity of the men who are buying it and not to the company?

A. Yes, sir.

By Senator Kidd: Q. The company gets no part of the discount?

A. No, sir.

Q. Would stores other than the company stores take it at a discount in the same way?

A. No, sir; I do not think they would.

Q. You could not go to any other store and put it in at seventy cents?

A. No, sir.

Q. When you go to the company's store with that scrip can you buy goods as cheap as you can with cash?

A. Well, I do not know; I never tried to see.

By Delegate Duty: Q. Now, speaking with reference to the other companies you have worked for, do they have the same rule relative to the scrip used?

- A. Yes, sir.
- Q. Did you ever have any accident in the mine in the way of an explosion?
- A. No, sir.
- Q. Did you hear the mine inspector say anything about the dust in that mine?
- A. No sir; not there.
- Q. The only thing you heard him speak of was the conducting of the air through the mine?
- A. Yes, sir; I was not around where Mr. Henry was more than two or three minutes, I do not expect.
- Q. As a miner do you think there was dust sufficient in that mine to make it dangerous?
- A. Well, I do not know; I don't want to work in there so very much unless they have pretty good air in there.
- Q. But I am talking about dust—about its being explosive.
- A. Why, no, sir; there would be enough air.
- Q. Did you discover any gas in the mine?
- A. No, sir; but I have heard lots of fellows say there was gas there.
- Q. What means do they employ to get the gas out of the mine when it is discovered?
- A. None that I know of.
- Q. Now, what is your treatment at the hands of the operators of the mine? How do they treat their miners?
- A. They treat them pretty fair.
- Q. Are you allowed to complain of any grievances you may have there?
- A. Yes, sir.
- Q. You may state whether or not as a rule the men hesitate to complain when they imagine some wrong has been done them?
- A. No, sir; I do not think they do.
- Q. Now, are the conditions in the other mines you have worked in about the same as they are in this one?
- A. Yes, sir.
- Q. How many openings are there in the first mine you worked in?
- A. At Carbondale there are three.
- Q. And how many in the second?
- A. Two, I believe.
- Q. Now are there any of them with less than two?
- A. No, sir; not that I know of.
- Q. How are they ventilated—each of them?
- A. Why, pretty fairly; they are ventilated by fans.
- By Senator Kidd: Q. I want to ask you as to the existence of this dust in the mine where you are now working. How far is that from where any of the men are doing work?
- Witness: You mean the ones that are loading coal?
- Senator Kidd: Yes sir; or any shooting.
- A. Well, it is something like a quarter of a mile.
- Q. There is no dust in the rooms, of any considerable extent, where they are shooting?
- A. No, sir; but of course the coal falling off is chewed up by the cars coming out there.
- Q. It is far removed from any shooting?
- A. Yes, sir.
- By Delegate Mitchell: Q. What do you know about child labor in the bank?
- A. There are some pretty small children in there at work. I could not tell you how old they are because I never asked them.
- Q. Are there a number of small children?
- A. There are something like three or four.
- By Senator Kidd: Q. What is the character of their work?
- A. It is just attending to latches and doors.
- By Delegate Mitchell: Q. You believe these children to be how old?
- A. Some of them I would not take to be over twelve or thirteen years old.
- By Senator Kidd: Q. The old law limits it to twelve, I believe?
- A. To twelve.

Q. And the new law puts it at fourteen.

A. I believe so.

G. W. HOLDEN, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of G. W. Holdren.

Examination by Delegate Duty:

Q. What is your occupation?

A. I am a miner.

Q. Where have you mined?

A. I have mined at Cannelton, Four Mile, Carbondale, National and at Harewood, all in the Kanawha field, on the same creek, and close together.

Q. Where are you working now?

A. At Cannelton.

Q. Is that the same mine the witness just examined works in?

A. Yes, sir.

Q. How long have you worked there?

A. This last time since the middle of last September.

Q. Did you hear the statement of the last witness?

A. Yes, sir.

Q. Well, how is his statement?

A. Why, he and I kind of differ a little bit, but of course I haven't been to all parts of the mine; but where I am, as to the dust, we haven't any at all.

Q. Now, then, as to all other conditions, how is his statement?

A. Why as to air we have plenty of good air down where we are.

Q. As to treatment, and all that; how is that?

A. As to treatment it is all right. The treatment is good. The miners, I believe, are all treated well. I have never known of any mistreatment.

Q. Do you find any gas where you work?

A. No, sir; I have not. I saw Mr. Henry there examining for gas where I was working and he didn't find any.

Q. Did you hear Mr. Henry give any instructions about the mine when in your presence?

A. Not in particular. He just charged them about keeping their brattices up. Of course where I was the air was good and he didn't have very many instructions to give.

Q. Just general instructions?

A. Yes, sir.

Q. Well, now, was the last witness's testimony with reference to scrip and the use of it, correct?

A. Well, they use the scrip system there, and as he said, some of those outside people take in this scrip; but they sell it to other people; they can't go to any other store and cash it or trade it at all—to any other company store.

By Senator Kidd: Q. Could you assign your scrip to me and could I go into that store and get the value of the scrip?

A. You could get what they call the value of it.

By Delegate Duty: Q. By that remark do you mean to say they are charged more in the company stores than they would be at other stores?

A. Company stores are generally a little higher than the outside stores.

Q. Well, is it a perceptible difference?

A. No, sir; there is not a great deal of difference, and the company's store over here where we are at work as a general thing keeps a good article.

Q. Well, now, they give you dollar for dollar in these stores, do they? In other words, if you buy scrip worth five dollars at the company's office and trade it out in the company's store, do you get five dollars for it?

A. I get five dollars worth, which is just as much as I would get if I got five dollars in cash.

By Senator Kidd: Q. Who is the district mine inspector who comes to the mines at which you have worked?

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A. Mr. Henry.

Q. Have you seen him at all these mines where you have worked?

A. Yes, sir; I have seen him at every one of the mines where I have worked since he has been in office.

Q. Has he been attentive?

A. I think he has always been so.

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The taking of testimony at Montgomery having been completed, the Committee left for Charleston, arriving at that point about 5:30 p. m., where an adjournment was taken to meet at the call of the Chairman.





# THOMAS MINE EXPLOSION.

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## TUCKER COUNTY.

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**FEBRUARY 4th, 1907.**

Together with report of itinerary through Barbour, Randolph, Tucker, Marion and Harrison Counties, including testimony adduced and proceedings had before the Committee.

CLARKSBURG, WEST VA.,  
October 7th, 1907.

Pursuant to a call of the Chairman the Committee met at the Waldo Hotel in the city of Clarksburg at 7 o'clock p. m., and there were present Messrs. Gartlan (Chairman), Kidd, Duty and Mitchell, and the Secretary and Sergeant-at-Arms.

Absent: Mr. Strickling.

The State was represented by Attorney General Clarke W. May.

There were also present Chief Mine Inspector Paul and District Mine Inspector Earl Henry.

The Chairman laid before the Committee correspondence with Andrew Roy with reference to services performed by him for the Committee in visiting the Stuart mine, and also submitted to the Committee the question of additional compensation to Mr. J. O. Brooks. After a full and free discussion of both matters,

On motion of Mr. Kidd, Mr. Roy was allowed the sum of \$100.00 for going into the Stuart mine and \$44.25 expenses; and Mr. Brooks was allowed \$100.00 in addition to what he had already received for services rendered in the same connection.

The correspondence with Mr. Roy was lodged with the Secretary and the same was ordered filed with the records of the Committee.

The Chairman informed the members of the Committee that he had called them together for the purpose of visiting the Thomas mine where the explosion occurred on the 4th day of February last, and to make any other inspections they might deem advisable. Whereupon the following schedule was agreed upon for the itinerary:

Leave Clarksburg via the Baltimore & Ohio Railroad on the morning of the 8th and go to Grafton and Elkins; from Elkins to Thomas on the morning of the 9th, returning to Elkins on the evening of the same day; from Elkins to the Century mine in Barbour County on the morning of the 10th, and to Fairmont the evening of the same day. Further movements of the Committee to be decided upon at Fairmont. The Chairman announced that an arrangement had been had by which a private

car of the Baltimore & Ohio Railroad Company had been placed at the disposal of the Committee.

Pursuant to foregoing schedule the Committee left Clarksburg in the early morning of October 8th, and went from there to Grafton and thence to Elkins, arriving at the latter point at 12:30 p. m. The afternoon and night were spent in the city of Elkins.

At 7 o'clock on the morning of the 9th the Committee left Elkins and arrived at Thomas at 10:30 a. m., being joined en route by Hon. A. R. Stallings, member of the House of Delegates from Tucker county.

At 12 o'clock noon the following party entered Thomas No. 25 mine of the Davis Coal & Coke Company: Messrs. Gartlan and Kidd, of the Committee; General Superintendent Lee Ott; Chief Engineer C. H. Smith and Mine Inspector J. W. Paul. These gentlemen went into the Smith entry a distance of about 400 feet, examined the stoppings and overcast and had explained to them how the coal was worked. At 1 p. m. the party returned to the outside where they were joined by Delegates Duty and Mitchell.

Later in the afternoon sundry witnesses appeared and their testimony was taken.

The Committee having come into possession of a carbon copy of the evidence adduced before Coroner Jones in relation to the explosion at Thomas mine No. 25 on the 4th day of February last, the same was ordered to be made a part of this record and will be found immediately following the testimony taken before the Committee bearing upon the same subject.

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## TESTIMONY TAKEN BEFORE THE COMMITTEE AT THOMAS.

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WILLIAM CLOUSER, a witness of lawful age, having been first duly sworn, testified as follows:

### Testimony of William Clouser.

Examination by Attorney General May:

Q. Where do you live?

A. I live up here in Thomas—up on the hill above Thomas.

Q. How long have you lived here?

A. I have been there a little more than two years.

Q. What is your occupation?

A. Mining.

Q. What part of it do you do?

A. I dig coal.

Q. Where are you digging coal now?

A. I am not digging at the present.

Q. Where did you last work at digging coal?

A. At No. 25 mine.

Q. Where were you working on the 3rd and 4th days of February last?

A. I was working on the 3rd day of February in Wabash heading of No. 25 mine.

Q. Do you know where the explosion occurred at that time?

A. I know where it was supposed to have occurred.

- Q. What mine was it in?  
A. No. 25.  
Q. What day of the week was that on?  
A. I do not remember the day but I know it was on the 4th day of February.  
Q. What time in the day?  
A. As near as I can tell you it was about twenty minutes of seven or something like that.  
Q. In the forenoon or afternoon?  
A. It was in the forenoon—in the morning.  
Q. What time do you usually begin work in the morning or did you at that mine?  
A. About 7 o'clock.  
Q. And this occurred you say about twenty minutes after seven?  
A. To seven.  
Q. Before seven?  
A. Yes, sir.  
Q. Where were you when the explosion took place?  
A. I was going to work then.  
Q. You were not in the mine?  
A. No, sir; I was not in the mine.  
Q. Did you go in the mine that morning?  
A. Yes, sir; I went in after the explosion with Mr. Jones and Mr. Riggleman.  
Q. Is that the gentleman there? [Pointing to a man sitting in the car.]  
A. Yes, sir; the mine foreman.  
Q. What did you find when you got in there?  
A. When we were going down the heading we found a man that was hurt. We met some other fellows and we found a man that was hurt and I helped to take him out.  
Q. Did you find any other people in there hurt or killed?  
A. No sir; not then.  
Q. Is that the only one that was hurt?  
A. That is the only one that we found and I helped take him out. I went outside then.  
Q. How long before that was it since you had been in this mine? When was the last time preceding the day of the explosion? Were you in there the day before?  
A. Well, I do not know whether I was in there the day before or not; I think this was Monday morning.  
Q. Well, were you in there on Saturday before?  
A. Yes, sir.  
Q. What was the condition of the mine when you left it on Saturday evening?  
A. The condition of my place was good.  
Q. Your place. What was your place?  
A. Wabash heading.  
Q. How many people were working in that heading?  
A. There were five men working in there then.  
Q. And did there any explosion occur in that heading?—or did the explosion affect it?  
A. Yes, sir.  
Q. In what way?  
A. Well, the concussion of it.  
Q. Well, the explosion did not occur in that heading, did it?  
A. No, sir.  
Q. Is this a shaft or drift mine?  
A. It is a drift mine.  
Q. How was the ventilation of that mine?  
A. It was good so far as I know.  
Q. Do you know what a good ventilated mine is?  
A. I think I do.  
Q. Well, describe to the committee what a good ventilated mine is?  
A. A good ventilated mine is to have good air in all sections and in all working places.  
Q. How do you get that?

- A. With brattices, trap-doors, good overcasts and so forth.
- Q. Does it require any machinery?
- A. Yes, sir; it takes a good fan.
- Q. Where was the fan located?
- A. Right outside; I could not tell you how far from the mouth; in the proper place, though—in the air course.
- Q. How many openings were there to the mine?
- A. Three.
- Q. Well, was this fan running on Saturday?
- A. Yes, sir.
- Q. Are you sure of it?
- A. Yes, sir.
- Q. You noticed it did you, particularly, yourself?
- A. Yes, sir; the fan was running on Saturday.
- Q. Was it furnishing plenty of air?
- A. Yes, sir.
- Q. And everything was in fine shape?
- A. It was in fine shape in my place.
- Q. Did you notice any other part of the mine?
- A. No, sir.
- Q. Then what caused the explosion?
- A. Well, I cannot tell that.
- Q. Is it common in this country for mines to explode?
- A. This is the first one I know of.
- Q. How can you account for the explosion, then, if the mine was properly ventilated and had plenty of good air, as you say you had in your room—and if you had it in your heading it most likely would have traveled elsewhere, would it not?
- A. It certainly ought to have done so.
- Q. If that ventilating fan ventilated your room properly, wouldn't the same power of ventilation have had the same effect on the other parts of the mine?
- A. It ought to; yes, sir.
- Q. How do you account, then, for this explosion?
- A. Well, I cannot account for what was done on Sunday. This was Saturday and everything was all right.
- Q. Well, have you heard any discussion among people who had an opportunity to know or did know about what caused it?
- A. No, sir.
- Q. Nobody has said anything about it?
- A. No, sir.
- Q. You have never heard it talked about any?
- A. I have heard it talked about, but I do not know a thing about it.
- Q. I did not ask you that; I asked you if you had heard anybody who seemed to know anything about it discussing how the explosion occurred and what caused it?
- A. Well, of course a man cannot talk about what he hears; it is just what he knows.
- Q. No; I did not ask you that; this is an investigating committee and we are not trying anybody. You have heard it discussed among the people, haven't you?
- A. I have heard it discussed; yes, sir.
- Q. Who did you hear it discussed by? Was it talked about by the people connected with the mine and citizens of the town here?
- A. Yes, sir.
- Q. Well, what was the prevailing opinion at that time as to what was the cause of the explosion?
- A. Well, they claimed that the fan had stopped on Sunday.
- Q. And hadn't started up yet when they went in on Monday morning?
- A. I do not know about that.
- Q. Well, was that the claim?
- A. That was the claim.
- Q. That was the talk. Now, who had that talk, do you recollect?
- A. I do not recollect just who I heard talking that.
- Q. Did you hear any of the miners that worked in the mine talking about it?
- A. No, sir.

- Q. How many were killed there that day?
- A. Why, I believe there were twenty-four, besides the superintendent.
- Q. Well, how many were in the mine that were not killed?
- A. I do not know.
- Q. Was there anybody?
- A. Well, I helped to bring one man out that was not killed and that is all I know.
- Q. Is he still living?
- A. As far as I know.
- Q. Where is he?
- A. I do not know where he is now. He was an Italian, I think.
- Q. So the discussion was that the fan had not been running Sunday?
- A. Yes, sir.
- Q. Well, how long, now, does a fan have to run, that has been stopped, before it will properly ventilate a mine—fill it properly with air?
- A. Well, I think it depends upon how long it has been stopped.
- Q. Well, one that has stopped twenty-four hours. Say this fan had stopped on Saturday evening when you came out and staid stopped for twenty-four hours, how long would it have to run before it would properly ventilate a mine?
- A. One hour would be sufficient.
- Q. Then they could have started it at 6 o'clock Monday morning and by 7 it would have been properly ventilated?
- A. Yes, sir.
- Q. But you do not know whether anything of the sort had been done?
- A. No, sir.
- Q. All you know about it, so far as you are able to judge is that your heading was in good shape?
- A. Yes, sir.
- Q. Do you know of anybody letting off blow out shots in there or shooting from the solid?
- A. No, sir.
- Q. Was it practiced in that mine?
- A. No, sir.
- Q. Do you know of anything of the kind being done in there?
- A. No, sir.
- Q. You never did it yourself?
- A. No, sir; I did machine work.
- Q. What explosives were used in there?
- A. Black powder.
- Q. Were any other explosives used by the miners?
- A. Not that I know of, for coal purposes.
- Q. Did you ever notice the presence of any gas in that mine?
- A. No, sir.
- Q. Or any dust?
- A. No, there was no dust any more than the machines made.
- Q. What precaution was taken by the owners and managers of the mine to prevent the accumulation of dust? Did you ever see anything done to prevent the accumulation of dust?
- A. There wasn't any dust.
- Q. It was a dustless and gasless mine, was it?
- A. So far as I know.
- Q. And in perfect condition?
- A. Yes, sir.
- Q. Was the fan running when you got to the mine on Monday morning the morning of the explosion?
- A. No, sir.
- Q. Had it been affected or impaired by the explosion in any way, so far as you could tell?
- A. I do not know what was the cause, but it was not running.
- Q. How long was it before it began running again?
- A. I cannot tell you that; it was but a very short time.
- Q. They started it up right immediately afterwards, didn't they?

- A. Yes, sir; it was but a very short time.  
Q. And it was stopped when you got there?  
A. Yes, sir.  
Q. And when they went to start it, it went all right?  
A. Yes, sir.  
Q. Then evidently it was not stopped by the explosion, was it?  
A. No, sir; I do not think it was.  
Q. Was it the habit to work in there on Sundays?  
A. No, sir.  
Q. Nobody worked there on Sunday, then—the day before the explosion?  
A. Not that I know of.  
By Senator Kidd: Q. Was any one killed in your heading?  
A. Yes, sir.  
Q. How many?  
A. Why, there was one man killed in my heading; I think that is all.  
Q. Had the fan been running that morning that you know of?  
A. No, sir; I do not know whether it had run or not before I came there.  
By Attorney General May: Q. Who was your fire boss in that mine?  
A. Why, I guess Mr. Stewart was supposed to look after that.  
Q. Who was superintendent of that mine?  
A. Mr. Jones.  
Q. What Mr. Jones?  
A. Mr. B. R. Jones.  
Q. What is Mr. Stewart's name—the fire boss?  
A. Arthur Stewart.  
Q. Where does he live?  
A. He lives here in Thomas.  
Q. Who was the man you say that got killed after the explosion—the man that went in after the explosion and got killed?  
Witness: In my heading?  
Attorney General May: No, in the mine. You said awhile ago you went in with somebody else and that somebody got killed in there after the explosion.  
A. No, I did not say that; I said I found a man crippled.  
Q. Who was the superintendent?  
A. B. R. Jones.  
Q. He got killed, did he?  
A. Yes, sir.  
Q. Do you know whether the fire boss had been in the bank that morning?  
A. I do not know.  
Q. Do you know where he lives now?  
A. He lives here in Thomas.  
Q. There was one man killed, then, in your heading?  
A. Yes, sir.  
By Senator Kidd: Q. How are you paid?  
A. We are paid so much a car.  
Q. How much?  
A. We are paid \$1.10.  
Q. How much is in a car?  
A. I could not tell you that.  
Q. Two tons?  
A. I do not know.  
Q. How often are you paid?  
A. Once a month?  
Q. How?  
A. I do not know what you mean.  
Q. In cash or by check?  
A. Yes, sir; in cash.  
Q. You are paid in money, are you?  
A. Yes, sir.  
Q. Are you required to buy anything at the company's store?  
A. Not if I don't want to and I do not suppose anybody would ask me to.

Q. Can you buy there during the month without your pay—in advance of getting it?

A. We get paid with coupons.

Q. Can you buy as cheaply at that store with coupons as you can with cash?

A. Yes, sir.

Q. At the same price?

A. The same price.

Q. Are there other stores here in town?

A. Yes, sir.

Q. How are the company stores, in prices, in comparison with the other stores?

A. They are pretty near the same thing.

Q. Not much difference?

A. No, sir.

GEORGE S. POLING, a witness of lawful age, after having been first duly sworn, testified as follows:

### Testimony of George S. Poling.

Examination by Attorney General May:

Q. Where do you live?

A. Right here in town.

Q. How long have you lived here?

A. About sixteen years.

Q. What is your occupation?

A. I am a coal digger.

Q. How long have you been digging coal?

A. About twelve years.

Q. Where did you first dig coal?

A. At No. 1 Coketon.

Q. At what other places have you worked?

A. I have worked in all these mines.

Q. In this section of the State?

A. Yes, sir.

Q. Where were you working on the 4th day of February last?

A. At No. 25 mine.

Q. Where were you when the explosion took place in this mine?

A. I was going right along here to work.

Q. What time in the morning did it take place?

A. Between 6 and 7 o'clock.

Q. What was the hour for beginning work in that mine?

A. Seven o'clock.

Q. Was that the rule of the manager?

A. Yes, sir.

Q. Well, would they let you in earlier?

A. Yes, sir; we could go in earlier there.

Q. You could go in whenever you got ready to—there was no regulation as to that?

A. No, sir; not as I know of.

Q. I believe the preceding day was Sunday, and this was Monday morning, was it not?

A. Yes, sir.

Q. Then you did not work on Sunday?

A. No, sir.

Q. Do you know anybody who did work in there on Sunday?

A. No, sir.

Q. Was it the rule to work in there on Sunday?

A. Yes, sir; some did mine work in there on Sunday.

Q. What did they do in there on Sunday?

A. They laid some tracks, and so forth.

- Q. Was it customary to run the fan on Sunday?  
A. Yes, sir.  
Q. Do you know whether it ran this Sunday or not?  
A. No, sir; I could not tell you.  
Q. Did you work Saturday?  
A. Yes, sir.  
Q. What time did you quit?  
A. It was after 3 o'clock.  
Q. What part of the mine did you work in?  
A. In the Smith heading.  
Q. How far was it from the Wabash heading, where the last witness was?  
A. I do not know.  
Q. How many people worked in your heading?  
A. About nine the time I was in there.  
Q. Was anybody in there the time the explosion took place?  
A. Not as I know of.  
Q. Was there anybody killed in there—in the heading that you had worked in on Saturday?  
A. One man that I know of.  
Q. One man was found in there dead?  
A. Yes, sir.  
Q. Then he was working in there, wasn't he?  
A. I suppose he was.  
Q. What was the condition of your entry on Saturday when you left it?  
A. It was very good.  
Q. As good as it had been at preceding times?  
A. Yes, sir.  
Q. Was there any gas in that heading?  
A. Not as I know of.  
Q. Or dust?  
A. Only from the machine.  
Q. Or fire damp?  
A. I do not know anything about the fire damp.  
Q. You never saw any of it?  
A. No, sir.  
Q. Did you ever see any after damp?  
A. I do not know.  
Q. Did you ever see any in that mine?  
A. After the explosion.  
Q. What was the cause of that?  
A. I suppose it was from the explosion.  
Q. Well, the explosion itself would not produce this, would it?  
A. That is all I know about it; I do not know anything about that.  
Q. That is something you are not acquainted with?  
A. No, sir; I am not.  
Q. Was there anything in your heading the last time you were in there prior to the explosion to indicate any danger?  
A. Not as I know of.  
Q. There was nothing there to cause any explosion that you know of?  
A. No, sir.  
Q. The fan was running on Saturday?  
A. Yes, sir; it was running on Saturday.  
Q. While you were working?  
A. Yes, sir.  
Q. Do you know whether it ran on Sunday or not?  
A. No, sir; I do not know.  
Q. Did you ever hear any talk as to whether it was running or not, among the people here or the miners?  
A. No, sir.  
Q. You do not know anything about that?  
A. I do not know anything about this fan business at all.  
Q. You know they have a fan there, don't you?



- A. Yes, sir.
- Q. Was it running Monday morning after you got there—after the explosion?
- A. No, sir.
- Q. Was it started afterwards—after the explosion?
- A. Yes, sir.
- Q. It was in good running order when they went to run it, wasn't it?
- A. Yes, sir.
- Q. And it ran as well as it ever had done?
- A. Yes, sir.
- Q. Did you assist in starting the fan?
- A. No, sir.
- Q. Who did?
- A. I do not know.
- Q. You did not see it started, then, did you?
- A. No, I did not see it started.
- Q. Who was the fire boss there?
- A. Mr. Stewart.
- Q. Where is he now?
- A. I do not know where he is now.
- Q. And the superintendent was Mr. Jones, I believe, and he is dead?
- A. Yes, sir.
- Q. Did you ever see any gas in that mine?
- A. No, sir; I do not know anything about gas.
- Q. Is there any gas in the mines in this section of the State? Did you ever see any?
- A. No, sir; I do not know a thing about gas.
- Q. And you have been digging coal twelve years?
- A. Yes, sir.
- Q. Were you ever in a mine where you saw any?
- A. I never was in no gas mines only this one.
- Q. Only this one?
- A. Well, it was supposed to be gas. I do not know whether there was any there or not.
- Q. Did you ever have any to take fire from the work?
- A. No, sir.
- Q. Do you know of any shooting in the solid in there?
- A. No, sir.
- Q. What were the rules for shooting?
- A. You mine your coal and shoot it.
- Q. What time in the day would you shoot?
- A. Well, we would shoot most any time in the day over here.
- Q. What with?
- A. Powder.
- Q. What sort of powder?
- A. They gave us common 4 F powder.
- Q. Did you ever know of any other explosive being used in there—dynamite?
- A. Yes, sir; dynamite is used.
- Q. Do miners use it in shooting down coal?
- A. Not as I know of.
- Q. What did they use it for?
- A. For shooting rock.
- Q. Well, did the miner have the privilege of taking in his powder when he pleased and as much as he pleased?
- A. I do not know.
- Q. How did you work that?
- A. I took in so much in the morning.
- Q. How did you get it?
- A. I took it from home.
- Q. Whatever quantity you wanted to take you took in with you?
- A. I took five pounds.
- Q. You could have taken ten if you had wanted to, couldn't you?

A. So far as I know.

Q. There was no rule as to that?

A. I do not know about that.

Q. Did anybody ever tell you just how much you were to take in?

A. No, sir.

Q. Do you know of any other people around here that were in there that were not killed?

Witness: That were not killed?

Attorney General May: Yes, sir; was every one in the mine killed at the time of the explosion?

A. Oh, no.

Q. Do you know of any of them anywhere around here that were not?

A. No, sir; I do not know any except these two gentlemen here.

Q. They were in there at the time of the explosion?

A. Oh, no; afterwards.

Q. Was there anybody in the mine at the time of the explosion that was not killed?

A. One man that I know of.

Q. What became of him?

A. I do not know where he is.

Q. It killed all the rest of them?

A. So far as I know.

Q. You say you do not know that man's name at all so we can get it?

A. No, sir.

Q. Do you have any idea how we can find out his name?

A. No, I do not; he was a foreigner.

Q. Where do you work now?

A. At No. 25.

Q. At the same place?

A. Yes, sir.

Q. The same mine?

A. Yes, sir.

Q. Where does this man, who has just testified, work now?

A. At No. 25.

Q. What sort of position do you hold there now?

A. I am digging coal.

Q. You are simply working at the same job you had before?

A. Yes, sir.

Q. How are you paid your wages?

A. By the car.

Q. How much do you get a car?

A. We get \$1.10.

Q. What did you get then?

A. I got \$1.10; I was following the machines, then, before this happened.

Q. How much did you make then? Did they pay you by the day then?

A. No, they paid me by the contract.

Q. How much did you make at it?

A. About three and a half to four dollars.

Q. What are you making now?

A. About the same.

By Senator Kidd: Q. Do you buy your own powder?

A. Yes, sir.

Q. Where do you get it?

A. At the company's store.

Q. What do they charge you a pound?

A. They charge us \$1.75 a keg.

Q. How much is in a keg?

A. There are twenty-five pounds, or supposed to be, I guess.

Q. That is seven cents a pound. How much do you use in a day?

A. About four or five pounds.

Q. Now, about this fire boss: It is his duty to go in early, is it, and inspect the mine?

A. Yes, sir.

Q. Do you know whether he had been in there that morning?

A. No, I do not.

Q. Has he been working for the same company since?

A. Yes, sir.

Q. And is still working for them?

A. Yes, sir.

Q. In what capacity—fire boss?

A. Not as I know of.

Q. What does he do now?

A. I do not know what he does; he is working there, though.

Q. Who is fire boss there?

A. Joe Golby.

Q. Has Mr. Stewart acted as fire boss at any time since the explosion?

A. No, sir; not as I know of.

Q. Was he discharged?

A. Not as I know of; I do not know about that.

Q. You are paid once a month, are you?

A. Yes, sir.

Q. If you should want pay in advance of the month, and have worked a week, can't you get it?

A. I do not know; I never tried it.

Q. Do you ever take coupons?

A. Yes, sir.

Q. What are they—orders on the store for goods?

A. Yes, sir.

Q. Something showing that you are entitled to so much money?

A. They are just coupons.

Q. And call for a dollar to five dollars?

A. Yes, sir.

Q. Can you get them cashed?

A. Yes, sir.

Q. Where?

A. We can get them cashed most any place.

Q. And you can take them to the store and buy goods with them?

A. Yes, sir.

Q. Can you buy at any other store except the company's store?

A. Not as I know of.

Q. You never tried that?

A. No, sir.

Q. When you take that coupon to the store to get goods do you get them as cheaply as if you were to take the cash?

A. Just the same price.

Q. The company is pretty good to you then, is it?

A. Yes, sir.

Q. And you have no fault to find? You are not restrained in any of your liberties?

A. No, sir.

Q. Are you allowed to talk about things that occur in there or are you enjoined to secrecy?

A. Yes, sir; we can talk about them.

Q. How long have you been at this mine?

A. I have been at this mine about seven years.

Q. You say you do not know anything about the accumulation of gas?

A. No, sir; I do not.

Q. In what heading were you at work at that time?

A. In the Smith heading.

Q. Is it the place the explosion occurred there?

A. Yes, sir; on that heading.

- Q. But it was before you went in?  
A. Before I went in; yes, sir.  
Q. Had you been in there on Saturday at work?  
A. Yes, sir.  
Q. And you say the fan was running on Saturday?  
A. Yes, sir.  
Q. Did you see it running on Monday before the explosion?  
A. I did not.  
Q. Whose duty is it to run the fan?  
A. I do not know.  
Q. Who did run it?  
A. Why, Mr. Dice.  
Q. Where is he?  
A. I do not know where he is; he changed this evening but he was at work today.  
Q. In the mine?  
A. Oh, no; he is running the compressor.  
Q. At the same mine?  
A. Yes, sir.  
Q. He was not discharged, then?  
A. No, sir.  
Q. Did he run the fan after that?  
A. Yes, sir.  
Q. Was that his whole duty—to look after the fan—or did he discharge other duties?  
A. No; he has to run the air compressor.  
By Attorney General May: Q. Then and now?  
A. He is still at the same thing now.  
By Senator Kidd: Q. Who operates the electrical plant?  
A. I do not know.  
Q. He didn't do that, did he?  
A. No, sir.  
By Attorney General May: Q. There were rules adopted as to the fire boss; when was he supposed to go in the mine?  
A. I do not know when he was supposed to go in.  
Q. Do you mean to say you have been working out here seven years in a mine and you do not know when a fire boss goes in?  
A. I know it is the after part of the night but I do not know just at what time.  
Q. What would he do when he went in there?  
A. Examine the mine.  
Q. Did he leave anything there to show the mine had been examined?  
A. He left the report on the outside.  
Q. He didn't mark the entries or the headings in there—those that were safe and those that were unsafe?  
A. Yes, sir; he marked them.  
Q. Did you ever see one in there that he marked unsafe?  
A. No, sir; not as I know of.  
Q. You never did in seven years?  
A. No, I never paid any attention to that.  
Q. Did you ever know of him missing to go in of a morning?  
A. No, sir.  
Q. It was always marked when you got in there?  
A. So far as I know.  
Q. And always marked safe?  
A. Yes, sir.  
Q. Do you know whether he had been in this time or not?  
A. No; I do not.  
Q. And you had no rules as to the time to go in; you could go in any time in the morning and go to work, could you?  
A. Yes, sir; so far as I know.  
Q. Before daylight or after daylight?  
A. Yes, sir.

Q. Well, what power ran the fan?

A. I do not know.

Q. Was it an engine—a steam engine or electric power?

A. It was electric power.

Q. So you do know then?

A. Well, you asked me what power and I did not know what you meant. I thought you meant how much power it would take to run it; that is what I thought you meant.

Q. Well, who operated it.

A. Mr. Dice. He ran it. The electrician, I suppose, would look after that part.

By Delegate Duty: Q. What time did you arrive at the mine on the morning of the explosion?

A. It was between 6 and 7 o'clock. I guess it was about ten minutes after 7 but it might have been a little later than that; I do not know exactly what time it was.

Q. Were you in the mine at the time of the explosion?

A. No, sir.

Q. How near were you to the mine when the explosion occurred?

A. I was walking right along here opposite the station.

Q. That is some little distance from the mine?

A. Yes, sir.

Q. You have stated that the mine boss marked the places on the faces in the mines where miners were at work. Did you ever observe yours marked anyway there—either dangerous or not dangerous?

A. He placed his reports, I told you, on the outside.

Q. He didn't mark them on the inside of the mine?

A. I didn't see them at the time.

Q. Had they at any time previous to the explosion marked the faces?

A. No, sir; I did not see any.

Q. You never knew of any marks being made, inside, then?

A. No, not before that.

Q. You depended then absolutely on the report that was on the outside of the mine?

A. Yes, sir.

Q. Was it customary for the miners on coming to the mine to examine the report of the fire boss at the outside?

A. Not as I know of; just a few of them did.

Q. They did not pay much attention to his report, then?

A. No, sir.

Q. It was the custom of the miners, then, to not heed the reports that had been made for them at the mine. Is that right?

A. The report he gave them was to make them safe and unsafe and these fellows would tell them to keep out.

Q. Do you mean to say that he would tell them?

A. He would tell them to refer to his reports in the office up there.

Q. And those that were considered safe he said nothing about; was that the rule?

A. So far as I know.

By Attorney General May: Q. Did you ever hear of him telling anybody of the mine or any part of it being unsafe?

A. No, I never heard him tell anybody.

Q. It was always safe, then, so far as you know?

A. Yes, sir.

Q. What time of the day did you do your shooting in that mine?

A. At different times and all times.

Q. Did you ever know of any shooting being done before 7 o'clock in the morning?

A. No, sir.

Q. Did you ever shoot any in the forenoon?

A. Yes, sir.

Q. You shot at any time. When a fellow got ready he fired his shot?

A. Any time after 7 o'clock; that is the only shooting that I know of.

Q. Then there probably wasn't any shooting done this morning of the explosion, it having been before 7 o'clock?

A. I do not know; all the shooting that I know of is in the day time.

Q. After seven o'clock?

A. Yes, sir.

Q. And any time from 7 o'clock during the day they would shoot if they wanted to?

A. So far as I know; yes, sir.

Q. But if you wanted to go in and work before seven you could do so?

A. Yes, sir.

Q. And shoot if you so desired?

A. I suppose they could shoot if they wanted to; I do not know nothing about that, though.

Q. How long had these miners been in there at the time of the explosion, or do you know?

A. No, I do not know.

Q. You heard nothing about that?

A. No, sir.

Q. What do you pay the company for a five-pound powder flask?

A. For the flask? I do not know just what the flasks are worth.

By Senator Kidd: Q. Are you married?

A. Yes, sir.

Q. Do you live in a company house?

A. Yes, sir.

Q. What rent do they charge you?

A. Five dollars.

Q. What size house is it?

A. I do not know.

Q. I mean how many rooms?

A. Five rooms.

Q. Did you see the fire boss that morning when you got to the mine after the explosion?

A. Yes, sir.

Q. Where was he?

A. He was outside when I got there.

Q. Did you go straight on there after you heard the report or did you hear the report of the explosion?

A. No, sir.

Q. But you went straight on there?

A. Yes, sir.

Q. And found when you got there that there had been an explosion?

A. Yes, sir; the fellows told me before I got there.

Q. Where was the mine boss when you got there?

A. He was there at No. 25.

Q. At the entrance?

A. Yes, sir; at the main entrance.

Q. What time did he say he had come out there that morning—the fire boss, I mean, not the mine boss. Did you see the fire boss there?

A. Yes, sir.

Q. He was at the entrance too?

A. Yes, sir.

Q. What time did he say he came out that morning?

A. He didn't say.

Q. Do you know whether he had been in there or not?

A. No, I do not know.

Q. What time does he come out and post his report as to the safety of the mine?

A. I do not know when he comes out. His reports are there about 7 o'clock in the morning. I have always seen them there when I got there.

Q. Do you ever go in there before seven?

A. No.

Q. In all the years you have been at work there?

A. I am generally there about ten or fifteen minutes after seven.

Q. And he posts a notice over the entrance, does he?

A. No; not over the entrance.

Q. I mean over the entrance when you go in?

A. No, sir; I never saw any there.

Q. Where does he post it?

A. In the office on the outside at the mouth of the mine.

Q. Is it posted so you can see it?

A. Yes, sir.

Q. It would be in great big letters over that opening, "The mine has been examined and is safe," or something like that?

A. Yes, sir; there is now.

By Senator Kidd: Q. Was it posted the same way as it is today—I mean before this explosion?

A. No, sir.

Q. That is the rule since?

A. Yes, sir.

Q. But it is there in great big letters "The mine has been inspected and found safe," or something like that?

A. Yes, sir.

Q. And before that it was posted against the office, was it?

A. Yes, sir.

Q. Where is the office?

A. It is a little west of the mouth.

Q. Between that and the creek bank?

A. Yes, sir.

Q. Was it the place we got our lamps filled—in that little building there?

A. Yes, sir.

Q. When you would go there in the morning you would go and examine to see whether it was safe to go in and you would take the chances of going in without examining for the notice?

A. I always looked myself; I do not know about other people; some few of them did.

Q. It was just the same thing every day, wasn't it? It was always reported safe there at the office?

A. Yes, sir.

Q. And if the old report staid over there it would be just the same, or was there a date fixed to it?

A. No, sir; there was a date on the papers every morning there.

Q. Did you look at it the morning when the explosion occurred?

A. No, sir.

Q. You didn't look to see if there was one there?

A. No, sir.

Q. Did you hear anybody say there was one?

A. No, sir.

Q. Did you ever hear any talk that the fire boss had not been in there at all that morning?

A. Not as I know of.

Q. About how many men were working in the mine?

A. I do not know; I haven't any idea.

Q. There were quite a number of them, were there not?

A. Yes, sir.

Q. And there were twenty-four killed, you say?

A. Yes, sir.

Q. And the mine boss himself had gone in?

A. Afterwards; yes, sir.

Q. The superintendent was killed, was he?

A. Yes, sir.

Q. Do you know what time he went in?

A. No, sir; I do not.

Q. What were his duties?

- A. He goes around over the mine.  
Q. He goes around from place to place and inspects the mine, does he?  
A. Yes, sir.  
Q. He goes in there and stays nearly all day, does he?  
A. No, sir; not as I know of; after he looks over the mine he comes out.  
Q. Does he go in every morning?  
A. No, he does not go in every morning.  
Q. Does he at least visit it every day?  
A. Yes, sir; so far as I know.  
Q. He follows the headings and rooms?  
A. I do not know about that.  
By Delegate Mitchell: Q. How long did you work in that heading—in the Smith heading—previous to the explosion?  
A. I worked in there I guess about a year.  
Q. Did you ever hear any gas escaping in leads in that heading?  
A. No, sir; not where I am working.  
Q. Well, between there and back behind where you are working—about room No. 1 or No. 2 or No. 10, or whatever it is?  
A. I never heard any gas; I don't know nothing about gas. I have heard some noise—a little bit—in there.  
Q. You have heard some noise as if something was escaping from the walls?  
A. Yes, sir.  
By Attorney General May: Q. Did you work on the face of the Smith entry?  
A. No, I worked on the Meyer's entry.  
Q. Was that the one where the explosion took place?  
A. No, that was down below?  
Q. What was the name of that place?  
A. The third left, we call it.  
Q. Why do you suppose that was the place of the explosion?  
A. I do not know.  
Q. Well, how do you suppose it then?  
A. I suppose it was down there from the talk of the people.  
Q. Oh, that was simply talk you heard?  
A. Yes, sir.

LOUIS SHAHAN, a witness of lawful age, after having been duly sworn, testified as follows:

### Testimony of Louis Shahan.

Examination by Attorney General May:

- Q. Where do you live?  
A. In Thomas.  
Q. How long have you lived here?  
A. I have lived here about eight years.  
Q. What have you been doing during that time?  
A. I have been mining most of the time.  
Q. Were you working at the Thomas mine last February?  
A. Yes, sir.  
Q. In what part of the mine?  
A. In the Meyer's heading or Smith heading—the Meyer's heading.  
Q. Of No. 25?  
A. Yes, sir.  
Q. How long was it since you had been in this mine before the explosion?  
A. I cannot tell you the first time I started to work there.  
Q. I mean what was the last time before or immediately preceding the explosion—on Saturday?  
A. On Saturday evening.  
Q. What time did you leave there?  
A. I left about 5 o'clock in the evening.



Q. Was the fan running then?

A. Yes, sir.

Q. Where were you when the explosion took place?

A. On my way to the mine.

Q. How far were you away?

A. I do not know exactly.

Q. How long was it before you got there?

A. About five or ten minutes, as near as I can tell you.

Q. Where is the fan of that mine located?

A. Up above the mine.

Q. Up on the hillside?

A. Yes, sir.

Q. On the outside?

A. Yes, sir.

Q. Was it running when you got there after the explosion?

A. I cannot tell you.

Q. You made no investigation as to that?

A. No, sir.

Q. And no inquiry?

A. No, sir.

Q. Did you make any inquiry as to what caused the explosion?

A. No, sir.

Q. Did you talk to anybody about it?

A. I talked to people but we were busy working.

Q. Did you ever notice the presence of gas in that mine?

A. No, sir; I do not understand gas.

Q. Did you ever work in a mine that had any gas in it?

A. No, sir; I never did.

Q. Did you notice the presence of fire damp?

A. No, sir.

Q. Or after damp?

A. No, sir.

Q. How is the mine as to dust?

A. It is all right so far as I know.

Q. Was it necessary to do anything to suppress the dust in there?

A. Not as I know of.

Q. Was the mine ever sprinkled?

A. Not that I know of.

Q. That was not necessary?

A. No, sir.

Q. To get rid of or control the dust?

A. Not that I know of.

Q. In what part of the mine did this explosion take place?

A. I do not know that, only from talk, and what Mr. Poling told you, who testified.

Q. But you never knew?

A. No, sir.

Q. Did you ever gain any impression as to what caused it?

A. No, I did not.

Q. Well, if there wasn't any gas in the mine and no dust or fire damp, what could have caused the explosion?

A. Not to my knowledge, I said.

Q. I say if there had been any in there of a serious amount, you would have discovered it, wouldn't you?

A. I certainly would.

Q. If there was not anything of that sort in there to cause the explosion? You are certain it exploded, aren't you?

A. Yes, sir.

Q. Now, what caused it in your opinion?

A. I do not know.

Q. You have got no idea about it?

- A. Not much; no, sir; because I have had no experience.
- Q. Well, you have had a little haven't you?
- A. Not as to that, I guess.
- Q. You haven't a particle of an idea as to what caused that explosion? Haven't you ever reached a conclusion in your own mind as to what caused it?
- A. I have reached a conclusion; yes, sir.
- Q. What was that conclusion?
- A. I suppose it was damp.
- Q. Would that damp have been in there if the fan had been running?
- A. I do not think so.
- Q. It is your judgment the fan was not running that morning?
- A. It was not, I guess.
- Q. And if it had been running properly the explosion would not have taken place?
- A. No, sir; I think not.
- Q. Whose duty was it to look after the fan?
- A. Well, now, I do not know; it is just hearsay with me about that.
- Q. Well, the superintendent bosses everybody about the mine?
- A. Yes, sir.
- Q. The fire boss is under him and the electrician and the mine boss and everybody else?
- A. They claim the electrician looks after that.
- Q. And the electrician is really under the superintendent. Do you know whether the fan was running on Sunday or not?
- A. I do not; I was not about the mine.
- Q. What rules have you about putting your shots off in the mine?
- Witness: You mean at what time?
- Attorney General May: Yes, sir. Have you any rules?
- A. Every fellow could shoot at any time.
- Q. Every fellow shot to suit himself and when he pleased?
- A. Yes, sir.
- Q. How much powder did you take in?
- A. Five pounds.
- Q. Was there any rule prohibiting you from taking more?
- A. No, not that I know of.
- Q. You simply took five pounds in because it was handy to carry and most convenient to use?
- A. Yes, sir.
- Q. Was there any direction to use powder alone or could you use other things?
- A. Powder alone—black powder.
- Q. They would not let you use anything else?
- A. Not unless we were shooting rock.
- Q. Did you ever know of any one shooting off of the solid in there?
- A. No, I do not know as I did.
- Q. You never did any of that yourself?
- A. No, sir.
- Q. And never knew of anybody else doing it?
- A. No, sir.
- Q. You always mine before you shoot?
- A. Yes, sir.
- Q. How was that coal mined—by hand or by machines?
- A. Before the explosion it was mined by machines; since then they have been mining by hand.
- Q. Why did they change?
- A. I do not know that.
- Q. There are no machines used in there now at all?
- A. No, sir.
- Q. There were machines altogether before that, were there?
- A. Yes, sir.
- Q. Do you know why they were abandoned or why they quit them?
- A. No, I do not.
- Q. Who caused you to stop using machines?

A. The mine foreman, I guess.

Q. Who is he?

A. Mr. Rigglesman.

W. B. RIGGLESMAN, a witness of lawful age, after having been first duly sworn, testified as follows:

### Testimony of W. B. Rigglesman.

Examination by Attorney General May:

Q. What is your position with this mine?

A. I am mine foreman.

Q. What was your position at the time of the explosion?

A. I was mine foreman.

Q. Have you ever been indicted for anything in connection with that mine?

A. I am summoned before the grand jury.

Q. Well, the coroner's jury held you as being responsible for one part of it?

A. I do not know as they did.

Q. You were required to answer to the grand jury, weren't you?

A. Yes, sir.

Q. Would you sooner not testify here today?

A. I do not see what is the use of my testimony.

Attorney General May: That is a privilege you can claim to yourself. Under the circumstances you are not required to testify.

Senator Kidd: Q. How long have you been with this company?

A. About seventeen years.

Q. How long have you been a mine boss?

A. About a year.

Q. At this one mine?

A. Yes, sir.

Senator Kidd: I do not think we ought to examine him then.

Attorney General May: No, they have held him to answer an indictment and I do not want to deprive any man of his constitutional rights, of course.

LEE OTT, a witness of lawful age, after having been first duly sworn, testified as follows:

### Testimony of Lee Ott.

Examination of Attorney General May:

Q. Where is your home?

A. My home is in Thomas here.

Q. What is your business?

A. I am general superintendent of the Davis Coal & Coke Company.

Q. As such did you have control and supervision of Mine No. 25 where this explosion took place?

A. Yes, sir.

Q. How long have you held that position?

A. Since last November.

Q. Where were you on the 4th day of February, the day the explosion took place?

A. I was here.

Q. Were you about the explosion?

A. I was there about ten minutes after it happened.

Q. What were your observations when you got there? You can just tell it in your own way better than we can ask you questions about it. Give the Committee your general observations of it?

A. I came up on top of the dump and met some miners there that had been

pretty badly blackened. I of course knew then immediately that there had been an explosion of some kind there. They were blackened with dust and I asked two of them I met where they had been and they told me. My next inquiry was for the mine foreman and mine boss and the fire boss and I was told they had gone into the mine along with the superintendent, and I hunted up another man there—I do not remember who he was—and I told him to get a lamp or two and we would go in and bring these people out—that is, the superintendent, mine boss and fire boss—until we could make an investigation in regard to the condition of the fan. I did not want them to go in too far. So we got the mine boss and fire boss and superintendent back out and we went over to the fan house and found that the fan was not injured in any way by the explosion but that the belt was off. I concluded that the concussion from the shot had thrown the belt off.

Q. Do you know whether the fan had been running that morning or not?

A. I do not.

Q. Was it the custom to run the fan over Sunday?

A. Yes, sir; it was the company's orders to keep that fan running at all times, day and night.

Q. You do not know whether it was running on Sunday or not?

A. I do know it was running Sunday until 2 o'clock; from that on until morning I do not know anything about.

Q. Whose duty was it to run that fan?

A. The duty was on a man by the name of Dice, who runs the compressor house there.

Q. It was his important duty to see to the fan?

A. Yes, sir; that was a part of his duty.

Q. Did you ever have any talk with him about it?

A. No, sir; Mr. Jones did that. The superintendent. I dealt with the superintendent directly.

Q. Where is Mr. Jones?

A. He lost his life.

Q. He lost his life at what time?

A. In the mine between 12 and 1 o'clock this same day.

Q. So you do not know whether the fan ran or not that morning?

A. No, I do not.

Q. How long would it take a fan to be idle before the mine would fill up with gas or damp or other dangerous matter?

A. Well, from the conditions I saw there I would be of the opinion that the fan must have been idle for about ten or twelve hours.

Q. So, then, the explosion was not what stopped the fan, in your opinion?

A. No, I do not think so. If the fan had been running half an hour or three quarters of an hour I do not think there would have been any danger of an explosion.

Q. Was there any gas in this mine?

A. It was so reported but we never considered it dangerous.

Q. But was there any gas in there?

A. It was reported that they found gas in there in small quantities, but my understanding was that the State mine inspector never asked for a fire boss there. A man was put on there as a precaution by the superintendent. He put this man on there to inspect the mine just as a precaution.

Q. What man was that?

A. Mr. Stewart, the fire boss, put Mr. Hiehle on.

Q. You used machines in there prior to the explosion, did you?

A. Yes, sir.

Q. Are you using any in there now?

A. One.

Q. How many did you use before?

A. All the right side of the mine was cut by machines and some on the left.

Q. Why have you abandoned them?

A. The explosion displaced all the pipe and everything, and some men would rather dig with picks. There was always a scrap to keep them digging out after the machines, and when the machines were run, the cost of the mining of coal was

about three cents more than we could mine it with a pick for; so the machines were abandoned in favor of picks.

Q. It was done on account of the expense, then, and not on account of the explosion?

A. Yes, sir.

Q. Did you attribute the explosion to the use of machines?

A. No, sir.

Q. In your opinion what caused that explosion?

A. Oh, there is no doubt it was caused by a quantity of gas there.

Q. An accumulation of gas?

A. Yes, sir; and the two men who were found at what we call the drop, in there on the third butt, fired two shots in the last room on that heading.

Q. That morning?

A. That morning.

Q. You had no rules as to the firing of shots?

A. No; the coal was cut principally in the night and the men went in in the morning and shot their own coal.

Q. Have you since then adopted any new rules and regulations as to the time when shots should be fired?

A. Not particularly.

Q. A man goes in and takes his own powder and shoots when he pleases?

A. We have rules governing the amount of powder he takes in. He must not take in more than five pounds of powder. We have the rules posted and we have furnished every miner we have got with a copy of the mine law.

Q. There is nothing to prevent him from taking in more than that if he wanted to?

A. No, but if we catch him with it we stop him.

Q. Did you ever discover them violating that rule of taking in powder?

A. No, there has never been any violation reported to me.

Q. Did you ever know of any of them violating any other rules?

A. No, sir.

Q. There is one question I would like to ask you: I believe you are a practical and theoretical miner also. That is, you have studied it from a practical and theoretical standpoint, haven't you?

A. Yes, sir.

Q. What in your opinion in the way of legislation would minimize the death rate in the mines of the State? To be brief, you are aware of the fact that there have been a great many deaths in the last twelve months in this State from mine explosions.

A. Yes, sir; and that is a pretty broad question.

Senator Kidd: Well, if you think it would take you too long to answer it, would you object to writing us out an opinion on it?

Witness: I would rather answer you in that way. I would rather you would give me some time to think it over.

By Attorney General May: Q. What amendments to the present law would you suggest?

A. I believe—just stating it off-hand—that we have law enough.

Attorney General May: If there is anything could be added to it as to a better method of execution—if there is anything could be suggested in the way of legislation, or enforcing the present laws, or legislation that would produce a better enforcement of the present laws, I would be glad to see it myself and I think the committee would.

Witness: I think we have ample law to protect the miners; but accidents, you see, of this kind occur and always have occurred and they cannot be controlled at all times by law.

Q. I have seen it stated from people who claim to be authority, that there were more people killed in West Virginia last year, per ton of coal mined, than in any other state of the Union.

A. No, that is not so.

Q. And that the danger is as one to eleven. I believe it is claimed that Colorado is the most dangerous of the mining states.

A. From my experience in the West Virginia coal field I think we have as safe mines as they have in Pennsylvania.

Q. And they claim the proportion is as eleven to one in our favor with Colorado. Still the number of people killed in this State in proportion to the amount of coal mined has been greater in the last twelve months than in Colorado.

A. I haven't seen any statistics to that effect. I find the conditions along the line of the West Virginia Central Railroad are good.

Q. Did you ever have an explosion in here before?

A. Never; never in this field we have not. We consider the mines in good condition and they are well equipped and well ventilated; but of course we have got to trust the people to keep this machinery going and it is our aim to have the best men in these responsible positions.

By Senator Kidd: Q. How many mines are under your supervision?

A. I have under my supervision twenty-six or twenty-seven mines.

Q. What distance apart—the farthest, I mean?

A. Well, they run from Weaver, over here at West Virginia Junction. I did have charge of the Simpson mine. They are located in groups. West Virginia Junction we call one plant; we have a local superintendent there. Elk Garden is called another district; we have a local superintendent there. I next reach Hendricks; we have a local superintendent there. We have two shafts there with one vein in operation—the Upper Freeport seam. Then we reach Thomas here; we have a district here composed of these three mines and there is a superintendent who was in charge of these; we have four mines at Coketon and we have a local superintendent there. We have four mines at Weaver and we have a superintendent there. I have general supervision over all of these superintendents.

Q. Now, I want to ask you this question: Can you give us some estimate about what this explosion here would cost your company?

A. It cost us thirty-eight hundred dollars.

Q. To put the mine back in as good condition as it was before?

A. We have never replaced the pipe lines. It cost us thirty-eight hundred dollars to put the mine to work—to start it to work—without saying anything about the expense incurred in disposing of the men killed in there.

Q. Have there been any suits brought against the company for damage caused by that explosion?

A. No suits have been brought yet.

Q. Were the most of these people that were killed foreigners?

A. I do not know as I could just name them. We had some five or six Italians and I know there were five Austrians and there were a number of Lithuanians; they are of Polish descent.

Q. Were any of the men killed married men?

A. Yes, sir; a number were married.

Q. Were their families here?

A. Yes, sir; my remembrance of it is that there were some eight or ten of them had wives here and some of them had wives in the old country.

Q. Are those wives still here?

A. I think all are here but two. Two went back home. We had one American boy killed here by the name of Allen.

By Attorney General May: Q. Where, in your opinion, Mr. Ott, did that explosion occur there, from your information?

A. It occurred in what is called the third butt off of the Smith heading.

Q. And you think it was an accumulation of gas in there, in consequence of the fan not being in operation, that caused it?

A. Yes, sir.

Q. Do you mean that the gas was caused by these shots that were fired?

A. It is my opinion that there was a small feeder in the air course in this heading. The fire boss reported to me the next morning after I got to quizzing him, and he said he found a small feeder Saturday night when he quit; and by this fan standing this gas accumulated in there and it followed that air course down to the switch, and these two men that came in there drilled two holes six feet deep in the last room on that heading, right in front of a cross-cut connecting with the

air course, and they fired them. We found these two men lying at the switch. I was in the exploring party that found them. One man was lying beside the car and another fellow was sitting along side a rib in a crouching position like this [indicating]—like a miner would usually sit down when he has hit a shot and is waiting until it goes off.

Q. Have you had any information directly or indirectly as to whether the fire boss had been in the mine that morning?

A. No more than what he said. He said he had been in there and he made a statement to me; I asked him immediately when I got there. I jumped on to him pretty roughly about that and he told me that he had been down to that switch and came down to the adjacent heading and back up to the north heading and to the pit mouth.

By Chairman Gartlan: Q. If the present mining laws were observed by both miners and operators, do you think they are sufficient to prevent explosions?

A. Well, no; I do not think they will prevent them and I do not think you can pass any to prevent them entirely.

Q. I mean if the laws were carried out?

A. If the laws were carried out the explosions would be held down to a minimum. There are some things about a mine that we have to trust to people who sometimes make mistakes in spite of the best government.

Delegate Mitchell: Q. In your opinion was that mine properly inspected that morning?

A. No, sir.





# TRANSCRIPT OF TESTIMONY

TAKEN BEFORE

CORONER WILLIAM A. JONES, J. P., AND  
A JURY,

At Thomas West Virginia.

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Commencing on the 8th Day of February, 1907,

In Relation to the Explosion at

THOMAS MINE No. 25,

ON

February 4th, 1907.

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The jury empanelled was composed of the following persons: A. L. Helmick, Dr. McVetti, Charles McIntire, Joseph Rexroad, Daniel Hayes and George Shatz.

Charles D. Smith, Prosecuting Attorney of Tucker County, appeared on behalf of the State; and

Mr. J. C. Brydon appeared on behalf of the Davis Coal and Coke Company.

There were also present Mr. J. F. Bratt, Mine Inspector, Third District, and Mr. Frank Parsons, Mine Inspector, Second District.

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Mr. J. C. Brydon: I want to say in behalf of the Davis Coal and Coke Company that the company feels that it has nothing whatever to conceal in this matter. It feels that it has done its full duty, and I would like to say to the justice that any and all information that the company may have is at the disposal of the jury, and any witnesses that you may need—that the company has any interest in—will be produced without legal process merely upon request by the justice that such a witness be forthcoming.

W. B. RIGGLEMAN, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of W. B. Riggleman.

Examination by State's Attorney Smith:

Q. Please state your name?

A. William B. Riggleman.

Q. What is your occupation?

A. Mine foreman at No 25 mine.

Q. For what company do you work?

A. The Davis Coal and Coke Company.

Q. How long have you been an employe of the Davis Coal and Coke Company?

A. Well, I have been employed by them for about fifteen years, as near as I can come at it; in the meantime I have been away and come back since I was first employed.

Q. Where were you when the explosion or the accident occurred?

A. I was just about leaving the house to go to the mine, or I might have been on the road to the mine.

Q. When were you last in the mine before this explosion or accident occurred?

A. Saturday evening I came out.

Q. What time did you come out Saturday evening?

A. Five o'clock.

Q. Five o'clock Saturday evening?

A. Yes, sir; it may have been a little after five.

Q. In what condition was the mine when you left it on Saturday evening?

A. The condition of the mine was what I pronounce good.

Q. When you left on Saturday evening was the fan running?

A. Yes, sir.

Q. Had it stopped any time during Saturday while you were at work at the mine?

A. No, sir.

Q. Was there any one working in the mine on Sunday?

A. Yes, sir.

Q. Who had charge of the mine on Sunday?

A. Not any one in particular.

Q. Do you know who was working in the mine on Sunday?

A. Yes, sir.

Q. If so, state who?

A. Will Pace, Joe Stuter, B. Riggotel.

Q. In what section of the mine were they working?

A. North heading.

Q. What were these men doing in the mine that day?

A. Laying a pipe line.

Q. Who has charge of the ventilating machinery?

A. During the week Mr. Bud Arnold.

Q. Who has charge of it on Sunday?

A. The pumper, Berkley, has charge of the fan on Sunday.

Q. Was Mr. Berkley working on Sunday and Sunday night?

A. No, sir; he did not work on Sunday nights.

Q. Do you know why he did not work on Sunday night?

A. He told me since that his wife was sick. He did not come out on Sunday; there was another man who did work Sunday night. Berkley was on in day time.

Q. Who worked on Sunday night?

A. Frank Juzitis.

Q. Were you around the mine at all on Sunday?

A. I was at the compressor house; I was not up to the mine. About 4 o'clock on Sunday evening I went over to the compressor house; I did not see any one there. I was going up to the boiler house and a boy said he was there, and I went to the train.

By Mine Inspector Parsons: Q. The pumper is on the inside of the mine?

A. Yes, sir.

Q. Are they electric pumps?

A. Air pumps.

Q. What distance in from the fan house are these pumps?

A. About one thousand feet.

Q. What kind of power do you run the fan with?

A. With electric power.

Q. Is he an electrician?

A. No, sir.

By State's Attorney Smith: Q. Mr. Riggleman, in running this fan does that require one man's attention or not?

A. Why, if everything is in good condition it doesn't need a man right there, I don't think.

By Mine Inspector Parsons: Q. Well, Mr. Riggleman, the pumps being run by air, and the fan, as you say, being driven by electricity, in what way would the pumper—being at his station in the mine—determine whether or not the ventilating machinery or fan was in motion?

A. He could tell that very easy, by the air traveling, whether the fan was in motion.

Q. Well, Mr. Riggleman, I noticed in making the examination of your mine an electric light, as I took it, very near the point where these pumps you spoke of were installed?

A. Yes, sir.

Q. In case the fan was not in motion and the power off, would not this light be extinguished, and what kind of an electric connection has this light?

A. When the power was off this fan, the electric lights in the mine would be out; you would know there was something wrong, of course.

Q. Now, am I right as to this light being constructed, or hanging at or near the location of this pump on the inside?

A. Yes, sir.

Q. Would that not be the best evidence that the fan was stopped?

A. Yes, sir.

Q. Was this man spoken of engaged running this pump and this fan on the night of the third and fourth of February, 1907?

A. The night man was at work on Sunday night.

Q. You gave us the name of a man who had charge of this fan and this pump on Sunday night, did you not?

A. He looked after the fan in case anything happened to the fan on Sunday night.

Q. You passed him on your books as a pumper?

A. Yes, sir.

Q. Had you given him instructions to give any part of his time and attention to the fan and ventilating machinery of this mine?

A. Not in particular, unless something happened to the fan.

Q. Did I understand you to say that you had given him instructions to give time and attention to the ventilating machinery if something should happen?

A. Yes, sir.

Q. Is he an electrician?

A. No, sir.

Q. In case something should happen, what were your instructions to this man as to his duties?

A. To get the electrician.

Q. Who is the electrician?

A. Jack Flynn generally looks after that through the day if anything is wrong.

Q. You say "Jack Flynn generally;" now, we don't want a "generally."

A. He looks after it.

Q. Did this man on the night spoken of report to Jack Flynn that there was anything the matter with the electric connections of your fan, to your knowledge?

A. No, sir.

By Mine Inspector Bratt: Q. Who was it had charge of the fan over there, or the

compressor, that got word that the "juice" was off of the line and the fan was stopped?

A. William Dice.

Q. The fan was stopped then and was not running?

A. That was Sunday about 2 o'clock, he told me.

Q. You don't know how long?

A. No, sir; the report came to me on Monday it was not on Sunday; I did not hear of this until Monday after the explosion.

By Mine Inspector Parsons: Q. Mr. Riggleman, I understood you to state that this was reported to you on Monday, the day of the explosion, and after the explosion which occurred?

A. Yes, sir.

Q. Well, had it been reported to you on Sunday, at the time of the occurrence, what would you have done?

A. I would have seen about the power—seen why it was thrown off and started the fan.

Q. Do you know whether or not anybody did what you say you would have done?

A. No, sir; I don't.

Q. You do not know?

A. No, sir.

Q. You do not know that the fan was running?

A. I don't know that it was running.

Q. You do not know that it was not running?

A. No, sir.

Q. Now, for the benefit of the jury, we want to know what was meant by "juice?"

A Juryman: I think we all understand that.

Q. Now, Mr. Riggleman, the man who had charge of the ventilating machinery and the pumps on the night spoken of, is he living?

A. Yes, sir.

Q. Has he since that time—the time of the explosion—made any report to you whether or not the machinery which, by your statement, was in his charge, was in motion?

A. Why, he told me that he was up at the fan house and when he got through the "juice" was thrown off again.

Q. You understood then, by his statement, that was in the night time on the night spoken of?

A. Yes, sir.

Q. Did he tell you whether or not he had been unable to get the power and start the fan?

A. He told me he was afraid to put the switch in—he was afraid it would burn up the motor.

The jury wants to know if that was Sunday night?

Mr. Parsons: Yes, sir.

Q. Then, Billy, your understanding from this was that the fan was not running?

A. Yes, sir.

By Mine Inspector Bratt: Q. Now, Mr. Riggleman, what time was that fan started, do you know?

A. Yes, sir.

Q. Monday morning?

A. I started the fan just about twenty minutes to seven o'clock—me and Mr. Stewart—right after the explosion.

Q. Do you know whether it ran or not before the explosion on Monday morning?

A. No, sir; I don't know whether it was running Monday morning or not.

Q. Do I understand, Mr. Riggleman, that the fan had not been running Sunday night at all?

A. Not that I know of.

By State's Attorney Smith: Q. Do you know whether or not the fan was running at two or half past two o'clock on Sunday, at the time Mr. Dice said to you that he had pulled out the switch?

A. No, sir; I do not.

Q. I believe you have stated that Mr. Berkley had charge of the fan and the pump on Sunday. Am I correct in that or not?

A. Yes, sir.

Q. If that fan was not running on Sunday would Mr. Berkley have known of it?

A. Mr. Berkley was not working on that Sunday; he did not go out to work on that day on account of his wife being sick, and one of his children.

Q. Who worked that day?

A. No one.

Q. No one was working there on Sunday at all?

A. No, sir.

Q. Is it not customary to have some one working there on Sunday?

A. Yes, sir.

Q. Did this man Berkley report to you, or to any one, that he would not be out to work on Sunday?

A. He did not report to me; he told me on Saturday. He came over to the mines and told me that one of his children was very sick and if I did not need him bad that day he would not come, but if I needed him bad he would go back and change his clothes and come; that was for Saturday.

Q. Was it his duty to report to you or someone else if he did not come out to work on Sunday?

A. Yes, sir.

Q. To whom should he have reported?

A. To me.

Q. So far as you know, Mr. Riggleman, Mr. Berkley was at his work at the pump house?

A. Yes, sir.

Q. Then, Mr. Riggleman, so far as you know when "Quintell," or whatever his name is, went on at work at night the pumps and fan were not running?

A. I was not there to see and no one had reported to me so far as I know.

Q. If these were not running when this man took charge, should he have immediately reported that to the electrician?

A. Yes, sir; he should have reported to the electrician.

Q. So far as you know did he report it to the electrician?

A. I don't know whether he did or not.

By Mine Inspector Parsons: Q. Mr. Riggleman, you will state to the jury whether or not your fan is of sufficient size and whether or not it is mechanically constructed in such a manner as to properly ventilate your mine when in motion?

A. Yes, sir; I think it will ventilate the mine when in motion, in good shape.

Q. What is the size and make of your fan?

A. It is an eleven-foot fan, I think, to the best of my knowledge.

Mr. Brydon: It is a Crawford & McCrimm 12-foot fan.

Q. Do you know the usual quantity of air that is passing through your mine when running the fan at the usual speed?

A. About 28,000 cubic feet per minute.

By Mine Inspector Bratt: Q. Now, Mr. Riggleman, I want to ask you a few questions in regard to the mine inside—in regard to its generating gas. Did you ever notice any gas accumulating in this mine in any way?

A. No, sir.

Q. While the fan was in motion?

A. No, sir.

Q. Do you know whether it generated any gas?

A. It generated a little gas; yes, sir.

Q. As long as the fan was running it kept it clear of any standing gas?

A. Yes, sir.

Q. If that fan was stopped from Sunday at 2 o'clock until Monday morning, don't you believe there would be an accumulation of gas in that mine enough to cause this explosion?

A. I never thought so.

By Mine Inspector Parsons: Q. Mr. Riggleman, your answer is "I never thought so." Do you think so now?

A. I could not think otherwise.

Q. Then you do think so now?

A. Yes, sir; I think so now?

By Mine Inspector Bratt: Q. Well, now, Mr. Riggleman, you were around with us pretty much all the time. Now, about where do you suppose this explosion occurred—where it first started—what is your opinion?

A. Well, from the looks of everything it started from the third left off the Smith heading.

Q. Was that third left, to your knowledge, generating gas any more than usual in the last few days?

A. No, sir.

Q. You did not notice any feeders in there?

A. I did not notice any feeders, no, sir.

By Mine Inspector Parsons: Q. Mr. Riggleman, when did you last visit the third left air course?

A. On Friday.

Q. On Friday before the date of the explosion?

A. Yes, sir.

Q. What was the condition of that air course on the date of this visit as to gas?

A. I did not notice any.

Q. Did you hear any gas feeders blowing?

A. Not to my recollection.

Q. Well, Mr. Riggleman, what experience have you had in gassy mines?

A. Not very much.

Q. Well, Mr. Riggleman, from what experience you have had do you think it possible that a fire boss, in making his official examination of the mine, could have visited this third left, which you are speaking of, within an hour of the explosion and have brushed the accumulated gas at the face out with his cap, making it clear? Now, I want you to make this statement and bear in mind the evidence of the force and violence which were displayed and which you saw in my presence in that section of the mine.

A. No, I don't think that much gas could have accumulated there in that time to create as large an explosion as that.

Q. Well, Mr. Riggleman, you was present, if I mistake not, when Mr. Bratt, the inspector, and myself made the first examination of this section of the mine, were you not?

A. No, sir; I was not.

Q. Well, you will pardon me; I remember now it was a Mr. Boyd. You have, I believe, examined this section of the mine since the explosion?

A. Yes, sir; I was in to the face of these places.

Q. Did you notice the machine which was switched, just inside the parting of room No. 3, I believe—the condition of that machine, the truck, the board and the other appurtenances?

A. No, sir; I was not up that far.

Q. Did you assist in recovering the two bodies of the two men which were found near the entrance of this heading?

A. Yes, sir.

Q. Did you notice the condition of their bodies in reference to burns?

A. Yes, sir.

Q. Tell the jury what you know.

A. These two men were burned very badly.

Q. Well, Mr. Riggleman, did you recover any other bodies beyond the point where you recovered the two bodies, the location of which, I believe, you pointed out to me?

A. No, sir.

Q. Well, now, Mr. Riggleman, do you think it possible that anybody with an open light could possibly penetrate that section of the mine to the faces, stem a shot and fire it and cause the disaster which occurred in that mine, with the accumulation of gas which you suspect was in that place?

A. I believe it now has always been a large shot of dynamite put off with the explosion.

By Mine Inspector Bratt: Q. How far from the face of the third heading was that man found?

A. Well, I should judge it was two hundred feet or something like that.

Q. There was no cross cut for him to go in, was there—if he fired a shot—to get out of the way, or did he have to run back two hundred feet to get out of the way?

A. In order to make himself safe in shooting dynamite he would have to go that far.

Q. Did they usually use dynamite?

A. No, sir; not unless they are around clay veins; some of them do use it in the clay veins.

By Mine Inspector Parsons: Q. Is there any cross-cut connection between No. 1 and No. 2 room?

A. No, sir.

Q. What distance is No. 1 driven from the heading—from the third left heading?

A. It is over one hundred feet.

Q. Where, in your judgment and experience as a practical miner and mine official, do you think the accumulation of gas was at the time it was ignited?

A. To the best of my judgment it was in the third left heading, either in one or the other of them rooms on the air course. I don't think there was gas in all these places.

Q. Mr. Riggleman, were you in company with the fire boss, inspector of mines, general superintendent, myself and others when the body of one of the employees, known as "Nosy," was recovered?

A. Yes, sir.

Q. In what section of the mine did they recover that body?

A. Between No. 8 and No. 9 room on the second left off the Smith heading, or the Meyer's heading.

Q. Do you think that the accumulation of gas which you spoke of in the third left off the Smith would be sufficient to conduct the heat, flame, force and violence that you noticed in there around to that section of the mine and do the damage in that section that you witnessed?

A. No I do not hardly think at that time, from the look at that heading, there could have been enough to do that amount of damage.

Q. Well, what is your solution of the condition that you found that body in, as to being badly burned; also, the force and violence that was displayed in this section of the mine?

A. Well, I think from the looks of that, that there was a little accumulation of gas that gathered in that heading that was exploded with the rest of it.

Q. Now, Billy, just in order to refresh your memory and to aid you in a proper solution, I would like to refer you again to the point where this body was recovered. If I remember right it was between rooms 8 and 9, and if my memory serves me right I think also that there were no other bodies recovered in advance of this one.

A. No, sir.

Q. What distance is it between the point where we recovered the body of the man known as "Nosy" and the face of this heading?

A. About two hundred feet I should judge.

Q. In what section of the mine did this man "Nosy" work?

A. He worked in No. 4 off this heading.

Q. He worked then in No. 4 and his body was recovered between No. 8 and 9?

A. Yes, sir.

Q. He then had been beyond his working place?

A. Yes, sir.

Q. Did you notice any unusual display of force in this section of the mine?

A. It seemed to be torn up most awfully severe.

Q. Did it appear in worse condition than in the entry spoken of before—I mean the third? Did not this second heading which we are speaking of now appear in worse condition than the third heading—the heading that we were speaking of before? Were you present when we recovered this body of "Nosy"?

A. I was not in the third.

Q. Then I will ask you if your entries originally had not been propped to hold the draw-slate spoken of. [Controversy.] Then I will ask you if the props and supports spoken of had not been all removed by the force and violence of this explosion?

A. Yes, sir.

Q. And this draw-slate had fallen?

A. Yes, sir.

Q. Did you notice the condition of the body of the man known as "Nosy" in reference to burns?

A. Yes, sir.

Q. What was it?

A. His clothing was burned off his back.

Q. How about his hair?

A. His hair was burned off.

Q. All burned off, wasn't it?

A. Yes, sir.

Q. Now, as to burns: which was the worst burned—the employe known as "Nosy" or the two machine men spoken of before?

A. Well, I did not notice the machine men as much as I did "Nosy" and I never seen the machine men after they were brought out.

Q. Do you think it possible by reason of the fan not being in motion, that the gas could have been generated in the third entry and have filled that section of the mine and have passed through, going to the raise—that the gas would naturally pocket and accumulate at the head of this entry?

A. No, sir; I would not have thought that, as the Smith heading raises more than the second left.

Q. Billy, I want to ask you if the inspector ever cautioned you in regard to the gas that was found in sections of your mine, in small feeders, as to the result in case you allowed it to accumulate?

A. Yes, sir; he told me to keep the air around the face among the men, was his instructions.

Q. And, Mr. Riggleman, then you faithfully, to the best of your knowledge, skill and ability tried to comply with his request?

A. Yes sir; I have.

Q. Mr. Riggleman, state if you ever gave Frank Juzitis, the Polander that is night pumper at No. 25, instructions to take care and keep the fan going during the night time?

A. I don't know as I did, just personally, but there was a rule that the night pumper looked after the fan, and also the pumps on Sundays.

Q. State if you know of any mine officials who ever did give him such instructions?

A. I don't know whether Mr. Rexroad or Mr. Campbell did, but that seemed to be the rule when I took hold there.

Q. Mr. Riggleman, as mine foreman do you consider that a part of your duty—to see that the man who was working in there, or as night pumper, looked after the fan? Do you consider that a part of your duty?

A. I always did since I have been there; I have always looked about the fan.

Q. Had you been notified any time during Sunday that the fan had been stopped?

A. No, sir.

Q. Mr. Riggleman, did Mr. Berkley tell you on Saturday morning that you probably had better look out for a man on Sunday to run the pumps?

A. No, sir; Mr. Berkley was over there on Saturday and told me that his little girl was sick and said, "If you don't need me very bad I will not work today, but if you do, I will go back home and change my clothes and come out to work." That is all I remember of him saying to me. Coal came out and I went ahead to help them unclamp the cars from the rope.

Q. Was Mr. Berkley day pumper when you took charge?

A. Yes, sir.

Q. Was this Polander night pumper when you took charge?

A. Yes; he moves the machines at night and he and Mr. Stewart together look after the pumps.

Q. So that you did not consider it your place to instruct them since they were on duty when you went in? Had there been a new man appointed would it have been your duty to have instructed him?

A. Yes, sir.

Q. What would have been your instructions in regard to the fan?



A. My instructions would have been to look after the fan, and notify me in case of accident, and get such parties as were needed to repair the fan.

Q. Do you believe these men had been so instructed by your predecessor?

A. It seems they attended to these duties.

Q. Mr. Riggleman, who looks after this fan on Sundays?

A. The pumper is supposed to look after the pumps and the fan if it needs any attention.

Q. Did you ever instruct L. W. Arnold to look after the fan during the week days?

A. He always looked after the fan.

Q. Did you instruct him?

A. I don't know as I did.

Q. Were you ever informed that he was looking after them in the day time?

A. Yes, sir.

Q. By whom?

A. By him.

Q. What do you consider is the first duty of your fire boss to do when he arrives at the mine in the morning?

A. He should have examined the fan, I think, to see if the air was going into the mine in proper shape.

Q. If you were in the mine and the fan stopped would you consider it your duty to go out and start it?

A. I would.

Q. Mr. Riggleman, do you consider that Mr. Stewart, as the fire boss had full authority and power in the mine to have ordered the mine stopped on account of dangerous gas or not?

A. Yes, sir; he had.

Q. Have you been exercising authority over Mr. Stewart in his capacity as fire boss?

A. No, sir.

Q. Did you have a squad of men at work in the mine on Sunday or Sunday night?

A. I had three men working in the mine on Sunday laying pipe line in the North heading.

Q. Did you have anyone working Sunday night?

A. The night man was working on Sunday night—Frank Juzitis. He told me two machine men were there working in the seventh butt.

Q. Now, don't you consider it your duty, as mine boss, when you send a squad of men in there to work—don't you consider it your duty to know that the ventilating power is all right and that the mine is safe for work?

A. I considered the mine safe.

Q. Did you consider it your duty to see that the mine was safe, that the ventilating apparatus was intact and right, and especially in a gaseous mine?

A. Well, as I said before I considered the mine practically safe not knowing anything was wrong with the ventilation.

Q. Don't you think it was your duty to see, not to think about it?

A. Well, that question is just like this: I expected the night pumper to be there and if anything was wrong with the fan to fix it.

Q. Did you not consider it your duty to see that the mine was safe for this shift to go on, and how could you know that if you were not there?

A. I suppose it was my duty to know if the mine was safe, but then why as a rule, mine foremen don't hardly ever come out on a Sunday, and also a Sunday night, unless they are working more than three men.

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ARTHUR STEWART, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Arthur Stewart.

Examination by State's Attorney Smith:

Q. What position, Mr. Stewart, do you hold to the Davis Coal & Coke Company?

- A. Fire boss.
- Q. How long have you held this position?
- A. Something over four years.
- Q. What are your duties as fire boss?
- A. I examine the places that generate gas and report to the mine boss.
- Q. How often do you examine the mine?
- A. Once every day.
- Q. What time of the day do you examine the mine?
- A. Before the men go to work; I go in at half past 4 in the morning and report at 7 o'clock.
- Q. Where do you report?
- A. At the check house.
- Q. You may state whether you visited the mine, which is known as Mine No. 25, on the 4th day of February?
- A. I did sir.
- Q. What time did you enter this mine?
- A. About ten minutes past 5, or fifteen; I was a little late that morning. It was 5 o'clock just when I left my home.
- Q. In your trip through the mine that morning did you visit all the chambers or places in the mine or not?
- A. I visited all the places that held gas.
- Q. Mention the places that you visited?
- A. I visited the air course to the third left, to the North heading; I visited the third left to the North heading; I visited the third left air course to the Smith heading; I visited the third left heading to the Smith heading and the North heading. That is all the places I visited.
- Q. So far as you were advised and informed were they the only places which were giving off gas?
- A. These were the only places.
- Q. Was there any gas in the mine when you visited it that morning?
- A. Yes, sir.
- Q. Where did the gas seem to be?
- A. In the third left heading to the North heading I found a little gas in the left hand corner—just enough to move the light.
- Q. About what time was it when you discovered this gas at this place?
- A. It may have been about, may be, fifteen minutes to 6 o'clock there.
- Q. Was the fan running while you were in the mine?
- A. As far as I know it was.
- Q. What time did you leave the mine?
- A. I came out of the mine at exactly thirty minutes past 6.
- Q. To whom did you report that morning?
- A. I did not report to anybody that morning.
- Q. Why did you not report?
- A. The occurrence took place before I met the mine boss.
- By Mine Inspector Parsons: Q. Mr. Stewart, you spoke of an occurrence; what occurrence was that?
- A. The explosion.
- Q. The explosion?
- A. Yes.
- Q. What kind of an explosion was it?
- A. No doubt it was an explosion from gas and dynamite.
- Q. Gas and dynamite?
- A. Yes.
- Q. In your experience as a practical and thorough fire boss, mine foreman, etc., and from your personal examination of the mine, in what section of the mine do you think that occurred?
- A. It occurred in No. 1 room in the third left off the Smith heading.
- Q. Mr. Stewart, what evidence have you that this occurred in No. 1 room in the section of the mine that you speak of?
- A. They had used dynamite in the solid of the coal, and shooting in the solid—which is well known to you—creates what is known as "stone gas"—the strongest

kind of gas that can be exploded. One cubic foot of that gas is equal to thirteen cubic feet of carburetted hydrogen.

Q. Did you find any more disturbance in No. 1 room than you did in No. 3 room?

A. I can't say that I did.

Q. Did you find any more disturbance in No. 1 room—third butt—than you did in No. 10 room, second butt?

A. Yes.

Q. Did you find any more disturbance in No. 1 room—third butt—than you did in, or at or near the face of the second heading and air course?

A. At the face of the heading I did.

Q. Now, Mr. Stewart, this stone gas that you speak of as an extremely high explosive gas: Do you think that what you observed in No. 1 room in the way of solid shooting would have generated enough of this gas to have caused all of the force displayed in that mine?

A. I could not answer that question.

Q. Did you, in making your official examination of the mine on the morning of the explosion, penetrate to the face of the second butt heading and air course off the Smith heading?

A. No, I did not, because no gas had ever been generated in that part of the mine.

Q. Did you enter into that section of the mine at all?

A. Yes, sir; I was in the third left.

Q. Then you did not enter into the second left?

A. I did not.

Q. Did you, in assisting to make the recovery of the bodies, notice the condition of the second heading and air course paralleling the same?

A. Yes.

Q. Did you see any evidence of an explosion which had occurred in that section of the mine?

A. I cannot say that it occurred in that section of the mine, but from where it started it done greater damage in the second butt off the Smith heading.

Q. Then you did find evidence of more force and violence in that section of the mine than you did in any other section of the mine?

A. If you will allow me to explain it in a few words: In the third left heading the roof is good and solid; there was not much gob up there to be thrown around; but the second left heading—it is in something like about 1,300 feet—and there is quite a mass of gob in that heading, and loose draw-slate. Therefore, the explosion would do more damage.

Q. Mr. Stewart, the stone gas which you speak of being generated by reason of solid shooting. Do you think that it would support the heat and the flame which no doubt accompanied the explosion to the point that you found the body of the employe on the second left, known by the name of "Nosy," sufficiently to burn his body in the condition in which you found it?

A. Yes, sir; the flame was strong enough to do that.

Q. Do you know anything in regard to the elevation of the face of the second left off the Smith in reference to the face and the mouth of the same?

A. I expect there is a seven per cent grade going up the rooms, and the heading runs level.

[Blue print is sent for and gone over by the witness, mine inspectors and the jury.]

Q. Mr. Stewart, we have determined by reference to the blue print of the mine that there is a difference in elevation of nine feet between the mouth of the second left butt entry off the Smith and the point at which the body of the employe known as "Nosy" was recovered. In other words, it was nine feet higher at the point at which the body was found than it was at the mouth of the entry. I want to know—in case the ventilating machinery was not in motion and there would be gas traveling along this Smith entry—whether or not it would not accumulate in the face of the second left heading and air course of the same?

A. If there was no ventilation it would accumulate.

Q. Well, then, in case the ventilating current would be re-established and the door, which we found, the remnants of which were across the entry, had been left open—that is, across the Smith entry—what would be the result?

A. It would stop the ventilation from going along the working places.

Q. Now, in other words, would the air traveling along the Smith entry, in case the door was left open, dilute and render harmless an accumulation of gas in the faces of the second left heading and air course?

A. No.

Q. Well, Mr. Stewart, would it not by diffusion render harmless an accumulation of gas for quite a distance up this heading?

A. Yes, sir; traveling at 1,000 feet per minute it is supposed to pull it one hundred feet and render it harmless.

Q. Then, Mr. Stewart, do you think it possible, in case that the ventilating machinery was not in motion at any time during Sunday and Sunday night, that the gas would accumulate in exceedingly large quantities sufficient to fill the third, the Smith, the second off the Smith, and at all other high points in that section of the mine?

A. Not enough gas in that section generated during that time. In all our travels through there we only detected gas once. I made a thorough inspection of the mine in the presence of Mr. Parsons and only found gas once.

Q. Mr. Stewart, in case the mine was generating a sufficient quantity of gas to fill the section of the mine which I have mentioned, and the ventilating machinery would be stopped, and the doors before mentioned be left open, would there not be an accumulation of gas still remaining near the faces of the second heading and the air course paralleling the same after the ventilating machinery had been running several hours?

A. That is an experiment question. [Objection by the jury.] Well, I will answer it this way: there can be gas found in the face of these places for some little time after the fan is running, without a doubt; every miner knows that.

Q. About, to the best of your knowledge, what distance is No. 2 heading and air course off the Smith driven?

A. I think something like twelve or thirteen hundred feet. I go up through them about two or three times a week.

Q. Then if these headings were full of an accumulation of gas and the door should be left open, the gas would have no other means of being diluted, carried away or rendered harmless, other than by natural diffusion with the passing current, would it?

A. It will not.

Q. In your judgment, about what distance will a passing current—with the velocity which you usually maintain along that entry—pull an accumulation of gas such as I have already mentioned?

A. It would pull it from eighty to one hundred feet, the usual current of air that we have, and make it safe for men to work.

Q. Well, Mr. Stewart, would there not be a system of diffusion take place where there is no power intermingling with the air?

A. It would not pull; it would be stationary.

Q. Did you ever have any experience in dust explosions?

A. No.

Q. Well, now, Mr. Stewart, would it not be a reasonable theoretic solution that the man known as "Nosy," in going up that entry with an open light, would ignite an accumulation of marsh gas at the head of that entry?

A. If it was there it certainly would ignite it.

Q. If such a thing should occur in what kind of a condition would you expect to find his body in making the recovery?

A. That depends upon circumstances.

Q. I mean in reference to burns?

A. If he was knocked flat on the ground the flames would pass over him—would not burn him—would not burn his hair.

Q. Well, I will ask you another question, Mr. Stewart: Have you ever had any experience in gas explosions?

A. Yes, sir; I have been in gas explosions; I have never been burned in them.

Q. Well, usually, in that section of the mine where gas is exploded, in making the recovery of the bodies do you not find them burned?

A. I have found bodies six feet apart in explosions, where one was burned and one was not burned. If a man stands up, you understand, he will be burned; but if he lays down it will pass over him.

By Mine Inspector Bratt: Q. In all cases, Mr. Stewart?

A. Not in all cases; if the flame is so great it will fill from the roof to the pavement.

By Mine Inspector Parsons: Q. Will you please tell the jury the condition of the body of the employe known as "Nosy," which we found between rooms 8 and 9 in the second left butt off the Smith heading, in reference to burns?

A. I did not examine him in the mine; I went to the undertaker's today and saw him, and he was burned.

Q. Mr. Stewart, was he burned in such a manner as to cause you to conclude that there had been a gas explosion near where his body was recovered?

A. He was burned pretty bad. In traveling from the point where we started you and I agreed that the explosion took place six hundred feet from where we found his body.

Q. Could it be possible that the initial start and cause of the explosion was in the room or in the heading which you have before named, and the flame accompanying the same could have come in contact with another accumulation of gas near the face of the second heading and air course causing an additional explosion?

A. I would refuse to answer that question because when gas explodes it always explodes in one volume.

By Mine Inspector Bratt: Q. Well, you think that the flame from the explosion in the third butt would extend and connect with gas in the second?

A. I say not.

By Mine Inspector Parsons: Q. Marsh gas mixed with a certain percentage of fresh air is a very high explosive, is it not?

A. Yes, sir.

Q. In what manner does it explode—in what manner do you ignite it?

A. You ignite it with a naked light. It will go off by concussion due to a heavy shot in the solid.

Q. Mr. Stewart, you say it will ignite with a flame. Had there been an accumulation at the head of the second left and air course, and the flame traveling from the third heading should come in contact with an accumulation of gas in the second heading, would it not ignite it?

A. Yes.

Q. In case there was, would it not burn this body found between eight and nine rooms on that heading?

A. Certainly; it would be bound to do that.

Q. And you stated that he was burned?

A. I stated he was burned.

Q. And I believe you have also stated that you found more violence in that section of the mine than any other section of the mine. Did you ever discover a feeder of gas in the third heading air course?

A. Yes, sir.

Q. How long since you discovered that feeder?

A. About ten days ago.

Q. Is that feeder an unusual feeder for your mines, in reference to quantity of gas as given off?

A. It is a very small feeder; it is an unusual thing to find a feeder in that mine. I have always been careful.

Q. I believe you stated that it was a very small feeder. Now, then, you mean to say that it is nothing unusual for this mine to strike feeders as large as the one is up there?

A. I say it is very unusual to strike a feeder at all.

Q. When you do strike a feeder is it not a large feeder that you usually strike?

A. No, it is small.

Q. Mr. Stewart, about how far can you hear that feeder giving off gas?

A. About fifteen feet.

Q. In what section of that mine is that feeder?

A. In the left hand corner of the third left air course.

Q. What is the distance, or the thickness, I should have said, of that pillar separating the air course and the heading?

A. I believe it is something like thirty feet.

Q. How far is the face of that air course in advance of the cross-cut?

A. It is about six feet.

Q. How far were you behind that cross-cut on the heading side when you made the test for gas and we discovered it on your lamp?

A. We were right on the turn.

Q. About how long is that turn?

[Question not answered.]

Adjourned at 5:30 p. m.

Convened Saturday at 10:45 a. m., with Arthur Stewart still on the stand.

By Mine Inspector Parsons: Q. Now, Mr. Stewart, you will state to the jury the thickness of the pillar which separates the entry from the air course in the third left of the Smith entry?

A. About thirty feet.

Q. Mr. Stewart, you will tell the jury, approximately, of course, about the distance the Inspector, Mr. Bratt, myself, yourself, and Mr. Brydon if I remember right, stood from the cross-cut on the entry side when you made the test with your safety lamp and first discovered the presence of explosive gas?

A. It was right on the turn, if I remember right, about ten feet from the corner of the cross-cut.

By Mine Inspector Bratt: Q. What is the distance from the rib side of the point of the heading on which we stood? Now, the turn might be three hundred and sixty feet and it might not be sixty feet.

A. It is a ten foot turn.

By Mine Inspector Parsons: Q. Now, Mr. Stewart, you will please state again to the jury the exact location of this feeder of gas?

A. The location of the feeder of gas is about two feet from the right hand corner of the air course. I was right in it and it did not have a particle of gas near the roof.

Q. Now, will you please tell the jury whether or not when we were standing at the place on the entry side where we discovered first with the safety lamp the presence of an explosive gas, if you could hear the gas escaping from the feeder?

A. Yes.

Q. I want to direct your attention to the evidence that you have just given. If I remember right, you state that the face of the air course is six feet in advance of the cross-cut?

A. Yes.

Q. If I remember correctly you state that the pillar is thirty feet in thickness?

A. I said about that; I could not be certain.

Q. If I remember right you said you stood about ten feet from the corner of the pillar on the heading side?

A. Yes.

Q. Well, a very simple rule of addition would show that we were standing forty-six feet from the feeder when you heard it. Is that correct?

A. No, that is not correct.

Q. Please correct the place on your statement that appears incorrect?

A. When I first discovered gas I was in a place where there had been a pot fall out of the roof. I called the attention of the mine inspectors to it. You were satisfied that there was gas there. Then I advanced forward and made another test. You remember that, don't you? I discovered more gas. Then my attention was called by the mine inspector if I could hear the feeder, and I said I did.

By Mine Inspector Bratt: Q. Mr. Stewart, you please show the jury where you held your lamp when you discovered gas the first time?

A. In the first place it was in the pot in the roof; then I advanced several steps forward and held my lamp about here—[about the waist]—about four feet from the pavement.

Q. Now, about how far was it from your hand to the roof?

A. I expect may be two feet or two feet and a half.

Q. That was gas from your hand up to the roof?

A. No, I expect there was about three per cent of gas. You see that lamp is supposed to test gas one-half of one-half per cent.

By Mine Inspector Parsons: Q. Now, Mr. Stewart, you will please tell whether

or not you were standing in the cross-cut separating the heading from the air course at the time that I asked you the question whether or not you could hear the gas escaping from the feeder?

A. I could not be certain about that.

Q. Will you please tell the jury what experience you have had in stone gas explosions?

A. The last was right in the old drift here. A man by the name of William Cunningham got himself very seriously burnt by stone gas in the old drift. I went up to see him that night and told him he had been shooting in the solid and he did acknowledge to it. He went right back in his old place, perhaps one minute after the shot had been fired, and it exploded on him and burned his hands and face severely, and arms also. [Witness here explains what he knows of stone gas.] Stone gas originates by shooting in the solid. When the blast goes off you hear a quick, short, snapping crack—what miners call “gun shots”. It just merely does half the execution it would do if there was a little more powder used. Then a miner going into that place with a naked light, it explodes; the jury knows that—part of them anyway.

Q. Now, you made the statement to the jury on yesterday that the stone gas which you had concluded had caused the explosion was generated by an exceedingly large charge of frozen dynamite which had been ignited in the solid coal in room No. 1 off the third butt off Smith heading. In your explanation to the jury you have not thoroughly covered the ground as to the generation of this gas—known to you as stone gas—by the use of dynamite; please do so.

A. I am not well versed in glycerine. But the jury—I want them to understand that if dynamite is frozen and tamped in a hole it will explode just the same as gas when she is set off. I am not able to say whether this shot of dynamite was frozen or if it was thawed out.

Q. Mr. Stewart, you will please explain to the jury the method employed to ignite frozen dynamite.

A. In my experience in using dynamite, I drilled a hole in it from three to four inches; I put my fuse in the end of the cap, and when I had it in my hole and tamped—glycerine goes off by concussion. When the cap ignites the glycerine goes off and you can find the dynamite just the same as when you put it in the hole—some of the jury knows that, I expect—so there is your explosion.

Q. Mr. Stewart, does the jury understand you to say that frozen dynamite explodes with more violence than dynamite thawed?

A. That's the way I want them to understand it—that the percentage of glycerine in the composition is ignited by the cap, and, also, the cap yields 160 pounds pressure.

Q. Well, can you explain to the jury why it is that all men who use dynamite as an explosive in construction work invariably thaw their dynamite before it is used, if they require a high explosive, which they undoubtedly do?

A. To make it safe and do good execution the dynamite must be thawed; otherwise if it is not thawed and is in a frozen condition it will explode. We have nothing then left but the glycerine in the cap and the dynamite, and the concussion of the cap going off sets off the glycerine that's in the dynamite and leaves you sawdust and lard in a frozen state.

Q. Mr. Stewart, you have before stated that frozen dynamite explodes with more violence than dynamite when it is thawed, have you not?

A. Yes.

Q. Then why should not all railroad contractors, if it is as you say a dangerous method to place the exploder in the frozen stick, when they desire large shots to loosen unusually large quantities of earth, thaw, we will say, one stick of dynamite prepared with the exploder and the fuse and fill the remainder of the hole with the frozen material and thereby do greater execution with less explosive material? Would it not, in your judgment, be an economical method of blasting?

A. No.

Q. Please tell the jury why?

A. Because when the cap goes off the glycerine being of a very high explosive nature it don't go down—it comes upwards—and were you in a close place and it could not be diluted, you understand, in your railroad building, it would be just like an explosion when it is confined. In other words, when the dynamite is thawed

and the cap explodes then it goes downward; then is when dynamite does her execution. When she goes downward then the glycerine flies backward and tears your rock out and does its execution.

Q. I don't know whether I understand your explanation or not. Do you mean to infer that the stick thawed that the exploder would not explode the frozen material?

A. No it would not explode.

Q. Well, now, Mr. Stewart, you will explain again the method that you employ in exploding frozen dynamite?

A. By thawing it out.

Q. Now, Mr. Stewart, you before stated to this jury that you had had experience in stone gas explosions in the drift, known as No. 23, belonging to the Davis Coal & Coke Company, caused by shooting off the solid, the same cause that you have assigned for the disaster which occurred in the drift known as No. 25, which happened on the morning of the 4th of this month. Will you please state if the explosion in No. 23 was of the same character, as to force and violence displayed on the inside throughout the workings?

A. I am not able to answer that question.

Q. You are if you saw them both.

A. No, it did not; because he shot with rock powder.

Q. You have stated to this jury that this explosion was caused by a shot of frozen dynamite being placed in Room No. 1 off the third left butt entry of the Smith entry. Is that correct?

A. That is correct.

Q. You have also stated that your method of using frozen dynamite was by thawing it. Is that correct?

A. That is correct.

Q. Will you please state the method employed by the employes who fired the frozen dynamite?

A. The jury must understand that I did not mean to say whether it was frozen dynamite or thawed dynamite that they used, but I was trying to explain the difference between frozen and thawed dynamite. One thing is, on my oath, it was dynamite.

Q. Now, Mr. Stewart, you will tell this jury who accompanied you when you made the examination of Room No. 1.

A. I went up to Room No. 1 by myself and you and Mr. Bratt, if I remember, Mr. Brydon and Mr. Ott, were standing out on the Johnson heading—what is commonly known as the "motor haulage". I asked Mr. Parsons to let us go up and examine that room, if you remember, and Mr. Parsons said "No". I did not ask Mr. Bratt—you were present though with us, and I came back and left you gentlemen sitting there talking and I went up and examined the cross-cut broken to the right hand pillar.

Q. Now, I will ask you did you notice the broken connection of the air pipe which went into that place?

A. I could not be certain whether I did or not.

Q. You did not notice then that the air pipe was broken at a connection near the heading and was hurled towards the face?

A. I could not say; we were tramping over broken pipe. I came to the conclusion that there's where the gas originated that caused the explosion.

Q. Now, had you have noticed the condition such as I have described, what would have been your conclusion as to the initial point of this explosion?

A. It would not come from No. 1 room but from some other source.

Q. Now, Mr. Stewart, this stone gas which you theorized caused this explosion—will you please explain to the jury whether or not, in your judgment, it had any other element, either marsh gas, dust in suspension in the mine atmosphere, or any other element which aided it and extended it over a larger area?

A. It was bound to have oxygen, I want the jury to understand, as the pure air that we breathe.

Q. I want to refer you again, Mr. Stewart, to your testimony in regard to the condition which you observed the remains of the employe known as "Nosy" to be in, in the undertaking establishment, in regard to burns?

A. I saw him.



Q. I believe you stated that he was badly burned?

A. I saw nothing but his face; he was burned.

Q. In your judgment and experience, Mr. Stewart, will you please tell the jury whether or not it was the stone gas which you theorized was generated in Room No. 1 off the third butt of the Smith heading, which was generated by reason of the explosion of a large charge of dynamite—whether it was of sufficient quantity to conduct a flame to the distance from the point, around the curve, and right angles which we found in the place on our examination, to the point where we found the body of “Nosy”, sufficiently to burn his body in the condition which we found him?

A. Yes,

Q. Will you please tell the jury, approximately of course, about what distance, in your judgment, this flame traveled from the initial point of the explosion to the place where this body was recovered?

A. It had about eight hundred feet to travel; I was going to say six, but I want to allow enough.

Q. Well, now, Mr. Stewart, will you explain why that explosion which would occur in Room No. 1 in the third butt, as designated, would travel the direction, in which we found all the evidence necessary, that this had traveled? Would it not, if all the gas which caused the explosion was generated at the point that you designate—would it not have come out of the place and traveled along the main Smith heading without making these abrupt angles that we found evidence that it had not traveled, if it had not have received additional assistance from some other element—some other section?

A. There was a very strong trap door at the second left heading on the Smith heading. Fifty feet from there is the air course; about one hundred and twenty-five or one hundred and thirty feet below there is another air course—remember, drove in and then turned up there on the main air course of the second left heading. Now here was two outlets for the flame to go into the second left heading, and the flame will go on—you cannot put it out by throwing water on it—until it strikes pure air enough to dilute it.

Q. Mr. Stewart, will you please explain to the jury why you theorize that there would be more force expended—more evidence of extreme violence which you stated in your testimony yesterday before the jury—in the second than you had in any other section of the mine; and as you have already stated that this force met quite a resistance before it reached that section of the mine, is it not evident that the more resistance the less force will be displayed?

A. I have just showed you two inlets to the second heading.

Q. Now, will you explain to the jury how far—in making the recovery of the bodies and in making the examination of the places—you found evidence that this heat had traveled. I am not having reference to concussion, but just to heat.

A. I think that I discovered all of the bodies with the exception of two. Now, I cannot tell whether there was a body burned in the mine or not; I never laid my hand upon one of them. All I done, was—“Here was a man and helpers was there to take the body away”. All the burned bodies I saw was in the undertaking establishment. There was ten bodies laid out there, and three of them was burned—that is all I saw of the bodies.

Q. Mr. Stewart, you will please tell the jury whether or not you examined the bodies which we found on the main Smith entry, at a point beyond the intersection of the second left butt; and in order to assist you I will call your attention to the body which we found that had the small canister of powder under his head, at the time of the discovery, which was not exploded?

A. I remember the powder you talked about. Was that in the Smith heading? I did not examine the bodies; I merely said, “Here is another man.”

Q. Now, Mr. Stewart, I will have you explain to the jury whether or not, in your judgment, with the force, heat and violence which we found evidence of in that mine, would not these bodies be worse burned than the body of the employee known as “Nosy”? Being in direct range of the explosion and being at a closer point, would they not be different in reference to burns than “Nosy”?

A. In my judgment they could not be as badly burned as “Nosy”; that flame had expended itself. Whoever found “Nosy”, there was a great deal of gob throwed

around; where the other two men was found there was little or no disturbance to be found.

Q. Now, if your theory is correct, did not the heat, the force, the violence, and everything constituting that explosion meet with more resistance at the point where we found the body of "Nosy" than it did at the point where we found the two bodies just mentioned?

A. Certainly. It met with more resistance where "Nosy" was found, and that is the reason there was no resistance to be seen where we found the last man—the big man.

Q. Now, Mr. Stewart, is it not a fact that the force and the heat which you say caused the disturbance at the head of the second left, according to your theory, met the door which was across the entry between the second left heading and the air course paralleling the same, traveled the entire length of the second air course, met resistance at the door, turned back down the second left heading to the South heading and then passed down where we found the two bodies just mentioned?

A. I explained that by telling you that the force had two inlets. It had one door when it was going up the Smith heading.

By State's Attorney Smith: Q. Mr. Stewart, in order to designate the point where this explosion occurred: You stated yesterday in giving your deposition that on the morning of the explosion you entered this mine at ten or fifteen minutes after 5 o'clock in the morning. Now take this map and point out to the jury on this map the places that you visited that morning?

A. I entered the mouth of the mine; then to the North; down in the North heading into the third left air course, went to the third left heading; next came back up to the Johnson heading—commonly known as the motor haulage; came right on direct to the third left Smith heading; came back and went into the air course of the third left Smith heading; came right back to the North heading and went straight down into the North heading; then I came directly back outside to the mouth of the mine. Well, I forgot; I went down to the fourth left heading in the Smith heading. This was as far as I could get for water; then I came right on outside.

[Mr. J. C. Brydon here states that the map in question was made on November 25th, 1906, and that all headings and rooms have been extended since that time.]

Q. Now, Mr. Stewart, you have traced out on this map where you went on that morning. Tell the jury, to the best of your knowledge, how great the distance was you covered in going these rounds that morning?

A. The blue print is one inch to the hundred feet. If I had a rule I could tell you exactly. We will say it is about eight hundred feet to the North heading; about two thousand feet down the North heading; about one hundred and twenty-five feet into the third left heading off the North heading; eight hundred feet across from the North to the Smith heading; about two hundred feet in to the face of the third left of the Smith; the same in the air course, and about three hundred feet down to the fourth left. That was my travels.

Q. Estimated, about how many miles do you think you traveled in that mine that morning?

A. Something less than a mile.

Q. When you were coming to work to examine the mine that morning did you meet any one on your way?

A. Not that I remember.

Q. As you were coming from the mine whom did you meet?

A. When I came to the head of the North heading on the straight heading there was one man coming here, and his light went out; that was the first man I saw. I went over and gave him a light.

Q. Who was that man?

A. I did not know him; he was an Italian; I did not know his name.

Q. Was he one of the men killed in the mine?

A. He worked in the second butt and he escaped.

Q. Who else did you meet that morning?

A. I met no one in the mine; I came up the rope haulage—the empty chute. It was a very frosty morning and I kicked the rope loose so that it would not break by being frozen in the ice.

Q. Whom did you meet at the mouth of the mine?

A. There was no one at this entrance. One man came back and I gave him some nails.

Q. Who was that man?

A. He was a young man about eighteen or nineteen, or possibly twenty—an Italian boy.

Q. Was he among the killed?

A. Yes, him and his father both.

Q. Who else did you meet?

A. There were several; one was an Italian that I did know by the name of "George". As I gave this man nails, he passed by and I gave him good morning. He is not among the killed; he is living; he had only gone in the mine a little piece. In about a minute or two at the latest the explosion took place.

Q. Did you meet any one else?

A. Not that I know of; everyone was excited.

Q. Did you see the man called "Nosy" that morning?

A. No, I did not to my recollection; my first thought then was to get to the fan house. The belt was off the big wheel and I could not put it on by myself, and I came then down to Mr. Riggleman, the mine boss, and I called to him to come quick, and we put on the belt.

Q. Were the employes working in that mine in the habit of going to work in the mine before you made your investigation, or not?

A. Sometimes. Not in the places I investigated. They generally came along from 6 to 7 o'clock in the morning. I met them often going to work, and if I found gas, I would stop them and tell them to stay out of their places, especially when they would shoot, for the space of ten minutes. There is lots of them in the town that can prove that, that work in there.

Q. Had you any given set, or any selected set of signals other than you have indicated, that you were investigating in the mine?

A. No, I have no other signals to give. I just notify the mine boss at all times. Some of the mine bosses is on the jury and know that for a fact. [Witness corrected statement.] Some of them were mine bosses but not now in the employ of the Davis Coal & Coke Company.

Q. Then, I am to understand, Mr. Stewart, that if these men came to the mine to go to work, and did not see you, and did not see Mr. Riggleman, that they would walk right in the mine and go to work?

A. No, sir; do not understand it that way. I always keep a sharp eye on the men as they go in. I would go right out and take them and tell them. I would furthermore take their light the distance that I had traveled.

Q. Had you any way of stopping the men from entering the mine while you were inspecting it?

A. No, I had no way. The mines were open; I could not lock them.

Q. Did you report this morning in question to the man whom you saw in the mine that you had found gas or not?

A. I never found a man that morning until I came back to the straight heading. That was the first man that I seen—that I gave the light to.

Q. Did you tell him that there was any gas in the mine?

A. He did not work in that section. He worked in the second left heading.

Q. Indicate on the map where the man called "Nosy" was found?

A. To the best of my recollection about here—in the second left butt heading off Smith, between No. 8 and 9 room.

Q. Indicate where this man's regular place of work was?

A. No. 4 room off the same heading.

Q. In going to room No. 4 off the same heading, how would that man go?

A. He would go right down here [indicating], down the North heading, cross over through a cross-cut to the Smith heading, out the Smith heading to the Meyer heading and from Meyer to Room No. 4.

Q. Was this man "Nosy" found beyond his working place?

A. Yes, sir.

Q. And if so, how far?

A. I expect about one hundred and eighty feet.

Q. Was there anything found in the working place that would indicate that he had been working, or in the place.

A. Yes. I cannot tell whether it belonged to "Nosy", but a coat was picked up, and a tape line taken out of the pocket.

Q. Did you examine the second left off Smith heading for gas that morning?

A. No sir; there was no gas in it.

Q. State whether you ever examined the second left off Smith heading?

A. Scores of times.

Q. Did you ever find any gas in that heading?

A. I never found a particle.

Q. You have stated that it was 6:30 when you came out that morning. Did you look at your watch at that time?

A. No, I did not look at my watch. It was 6:30 when the explosion took place and I suppose I had been out about four minutes.

Q. At what time had you—before the morning of the explosion—been in the habit of returning from your examination of the mine?

A. About the same time; sometimes later. Sometimes the drivers would be there, sometimes about 6:30, 6:25 or 6:35. I always made it a habit to get out and serve the miners with nails; you know that they are given free nails. Sometimes they would send other men in their places.

Q. Do you suppose that this man "Nosy", who was killed and the other men who were killed, entered this mine while you were making your investigation?

A. They must have, or they could not have been found at the points they were found. They must have.

Q. You have no way in which to warn the men that you are making your investigation of the mine?

A. No; I had no signals to set up to keep the men from entering the mine when I was making this investigation of the mine.

Q. As I understand the law, it is the purpose to have the fire boss examine the mine for gas, and if its presence is detected, that the men may be warned of the presence of gas. Don't you think that there should be some way that these men should be warned that you are making your investigation?

A. All the men that work in that mine know for a fact that I have met them scores and hundreds of times coming out of the different headings. Any man that I ever found gas in his place I let him know it. Also, I left a written report to the mine boss designating the places where there was gas.

Q. Then am I to understand from your answer that the men would go into the mine while you were investigating it? Is that true?

A. Yes, sir.

Q. Did you ever report these men for going in while you were investigating the mine?

A. No, sir; I have often said to the mine boss I have met certain men and that I have found gas in a certain place, and that I had brushed it out. Then I would show the men themselves how to brush out the gas.

By Mine Inspector Parsons: Q. Mr. Stewart, do you consider that a safe method of displacing a body of gas—by the brushing method?

A. It is not safe. It is in small quantities like we have, where it don't generate much gas.

Q. Well, don't you think it would have been a better method instead of teaching the men to brush the gas, that you would better have warned them to stay away from the accumulating gas until after the mine boss and yourself had had proper time to have removed it by a much safer method?

A. It was found in such small quantities it was not necessary.

Q. In case you had found an accumulation of gas that in your judgment would have been a dangerous accumulation, what method would you have employed to remove it?

A. Put the air to it.

Q. As an official fire boss you have absolute control of the ventilating machinery which ventilates the mine you have charge of, have you not, according to the law?

A. Yes, according to the mine law.

Q. Without any superior officer?

A. Yes, sir.

Q. Then the general manager, or any other official in this company, would have

no supervision over your work other than yourself, according to the law? Is it not a fact?

A. It is a fact.

Q. Well, as a careful, conscientious fire boss, before entering that mine to make your official examination on the morning of the explosion did you look to it that the ventilating machinery was in proper motion?

A. I did not.

Q. Can you state whether or not the fan was running at the time you entered the mine?

A. I cannot.

Q. Do you not think it would have been the proper thing for you to do—to look carefully after this matter before entering the mine, under our present law?

A. Yes, sir; that would have been the proper thing to do.

Q. Did you visit the pump which is located along your main heading?

A. No, I did not.

Q. Mr. Stewart, tell the jury as nearly as possible the time you made the official examination of the third left butt entry off Smith in which you think the explosion originated?

A. As near as I can guess at it now, from the time it took me to come out, it would be twenty minutes past six when I started out from the third left heading.

Q. You have already indicated to the jury the route which you traveled in coming out of the mine. Is that the usual traveling way for men entering the mine?

A. Yes.

Q. Do you think it possible that men could enter the mine after you had come out of it, and traveled the distance along the usual traveling way which you have already designated, prepared a shot by the usual method of boring a hole, stemming it up, igniting it, and retreating in the time that you have designated, without you had met them on the way to their working places?

A. They would not have time to do it, sir. You must know of the cross-cut turning to the right, to go through the pillar. Now, is it possible that they were in there and I did not know it. I never went in the rooms; there never was a particle of gas in there; I have visited the rooms time and time again and never found it.

Q. Will you please state to the jury whether or not the employes in that section of the mine used open or safety lamps?

A. They use open lights.

Q. Mr. Stewart, even in case they were in there with open lights, it would be an impossibility for there to have been an accumulation of fire damp in that place at that time?

A. Impossible for gas to be there with naked lights without an explosion.

Q. You will please tell the jury whether or not you heard any sounds that would lead you to believe there was anybody working in that section of the mine while you were there making your examination.

A. Not a sound.

Q. You will please tell the jury if you helped to recover the bodies of the two men who were found near the entrance to the room spoken of?

A. Yes, I went over by myself and found the last one. I did not find the first one—I was not in the mine at that time—but as soon as I went down in the mine and found the man I called the men to me and showed them where I found him.

Q. If you can remember, you will please tell the jury whether or not these two bodies had their coats on or off at the time that you recovered them?

A. I did not see the first man at all but the last man had his coat off.

Q. You will please tell the jury who these two unfortunate people were that you found there?

A. One of the men I knew by the name of Caston Prellis; the other man's name I never heard.

Q. By referring to the blue print would you please tell the jury the distance from the cross-cut spoken of to the point where you found the nearest or first body?

A. About one hundred and eighty feet.

By State's Attorney Smith: Q. When did you last examine the machinery connected with this mine?

A. The last time I examined it was on the morning of the explosion.

Q. Do you mean by that that you examined it before the explosion or after the explosion?

A. After the explosion.

Q. When did you examine it before that time?

A. I had no authority before that time; it belonged to the electrical department.

Q. Then by that answer you mean to say that you had never examined it before that time?

A. Oh, yes; I had examined it before that.

Q. When had you examined it before the morning of the explosion?

A. I expect something close to a year, sir.

Q. You have stated, I believe, in your deposition heretofore that you usually left your home about 4 o'clock to make an examination of the mine?

A. From four to half past four; along about that time.

Q. How long does it take you to examine this mine?

A. It takes me, as a rule, about an hour and three quarters; from that to two hours. You must understand that I do not examine any of the left-hand side of the mine.

Q. You have stated in your examination heretofore given that on the morning in question you entered the mine ten or fifteen minutes after five o'clock and that you came out something before half past six o'clock, making the total time one hour and fifteen minutes, say; and as you have stated before it takes you from one hour and three-quarters to two hours to make the examination of the mine. Now, state if you made as careful an examination on this morning in question as you usually make?

A. Yes. Now, I will explain that to the jury. You see I came direct from the pit mouth here to the North heading; down the North heading to the third left, North heading; came back across the Johnson heading; down the Smith heading to the fourth left; back up into the third left; through the cross-cut into the air course and went direct back out the same way to the pit mouth. At other times I come up the Smith heading, examine the rope haulage and see that there is nothing wrong.

Q. Is it a part of your duty to examine the rope haulage?

A. Yes, sir.

By Mine Inspector Parsons: Q. Well, Mr. Stewart, I will ask you whether or not you had heard any complaint before you had entered that mine for the purpose of making your official examination on the morning of the explosion, that the ventilating machinery had not been in motion?

A. I never heard such a complaint.

Q. Have you since the explosion heard any complaint along that line—that the ventilating machinery had not been in motion during the night or day before the explosion?

A. I have not.

By State's Attorney Smith: Q. On the morning of the explosion, you have stated that immediately after the explosion you went to the ventilating machinery and found the belt off the big wheel. At that time who was there in charge of it?

A. There was no one around the mine that had charge but myself, at that time. The mine boss had not arrived yet. I was there as fire boss but there was no one at the mine at that time; and as soon as Mr. Rigglesman, the mine boss, arrived on the ground I waived—I did not even call—I waived for him to come and we put the fan to work there on the spot.

Q. Do you or not know whether there is some one in charge of that part of the ventilating machinery all the time?

A. The electrician is all I know who has full charge of it; I do not know his name; there is a new man, if he has come, I never saw the man. Mr. Iler was our head electrician, I never had.

Mr. Brydon: Mr. Gilliam is the man. I want you to understand that Mr. Iler is the man who took the power out of everybody's hands. About the orders of the new electrician, I never had.

Q. Was Mr. Gilliam there that morning?

A. He was not there so far as I know. I do not know the man.

Q. Did you see anybody about the ventilating machinery at all when you went there that morning?

A. No, sir.

Q. Should there or not have been anybody there?

A. It is not customary I don't think to have a man stay in the fan house anywhere.

Q. Where does this man stay who looks after that? Does Mr. Gilliam give his personal attention to that, or does he have some subordinates look after it?

A. Yes, he has some subordinate look after it.

Q. What was the name of the subordinate that looked after that part?

A. I only know one man by the name of Jack Flynn.

Q. Did you see Jack Flynn there that morning?

A. No, sir.

Q. Did you see any other subordinate around there that morning?

A. Not to my knowledge or recollection.

Q. Did you hear the fan running?

A. Not that I remember of.

Q. Could you have heard it running?

A. If I had stood as I told you. I was late—as I have stated all along—that morning, and I went right straight in the mines without a thought of anything but to go on after my employment in the mine; therefore I did not stand at the pit mouth and listen to see whether the fan was running or not.

Q. You have stated that the electrician had charge of the machinery connected with this plant. State whether he had charge inside as well as outside of the mine?

A. Of the electrical department he had. That was Mr. Her. I know nothing about how the new man has acted.

Q. Did he have charge of the ventilating machinery?

A. I have stated to you three or four times that Mr. Her had charge of all machinery—engine, rope haulage and everything.

By Mine Inspector Parsons: Q. In case the fan should have stopped during the day on Sunday and the night before the explosion, would the feeder before referred to in your testimony have generated enough gas in the time named to have caused an explosion such as the one you had on that date?

A. No, sir; that feeder could not have generated enough gas to cause such an explosion.

Q. Mr. Stewart, is there any other feeder of gas in the right hand section of that mine other than the one we have just referred to?

A. None that I have seen in the last two or three weeks, you understand.

Q. In making your official examination did you examine any other section of the mine than the section in which this feeder is located?

A. I examined the North.

Q. Any other section than the North and the one referred to?

A. No.

Q. You will please tell the jury why you examined the North?

A. It is my duty to examine every place in the mine wherever gas generates off.

Q. Then, Mr. Stewart, we would infer from your reply to this question that there is gas generating in that section of the mine known as the North?

A. In the air course of the third left there was not a particle of gas that morning. In the third left heading in the North I found a little gas—not enough to cause any disturbance whatever. Now, I will give it to you straight as I found it: In the third left heading off the Smith not a particle of gas; in the third left air course off the Smith I found a little gas. That is all the gas I discovered that morning. I told you that when you arrived and I say it yet.

Q. Well, you have stated to the jury that immediately after the explosion you ran to the fan house and found the belt off the pulley which drives the fan. Can you account for this condition?

A. I will state this to the jury: that it is the duty of any miner of any experience, if any disaster occurs, to make to the ventilating machinery. It should be a miner's first duty at all times—whether he is an employe or whether he has charge—to keep the ventilating machinery in motion; so that I done nothing more

than what you would have done in going to the machinery. I cannot tell how far it got off.

Q. You do not know when it got off?

A. I could not say when it got off.

By Jurymen Rexroad: Q. Was the motor running?

A. I could not tell that.

By Jurymen Helmick: Q. Whose business was it to look after the fan to see if it was in repair and to see that it was running at all times?

A. The fan is run by electricity. I went to Mr. Flynn's house many a time after night when anything would happen to the fan and bring him from the house to fix the fan.

Q. I want to know who has charge of that at night?

A. The electrician.

By Jurymen Rexroad: Q. Mr. Stewart, you would know whether the motor was running or not; you would have to stop it to put the belt on?

A. I honestly do not remember. At that time there was perhaps half a dozen men, perhaps more, perhaps less; they came out of the mine all covered with dust and blood. I turned my attention to those men and took them to the check house.

By Jurymen McVetti: Q. Did the fan commence to run as soon as you and Mr. Rigglesman put on the belt?

A. As soon as the belt was on the fan was put to work, but I don't know who put the switch on. My attention was taken up with these men and I sent for the doctor. A Polish man went for the doctor.

By Jurymen Helmick: Q. You don't know who put the switch on?

A. I told you my attention was taken up with the men.

By Jurymen Rexroad: Q. You say you do not know whether the fan was running or not when you went into the mine?

A. I do not.

Q. Did you know by the time you came out whether the fan was running or not?

A. I came up the empty haulage out of the mine and loosened the rope at the pit mouth from the ice, and came out, and one young man asked me for nails; I gave him those nails; and less than one minute after that the explosion took place.

By Mine Inspector Parsons: Q. Mr. Stewart, when your fan is running is there not a sufficient volume of air passing along the traveling way—the way in which you travel to make your official examination of the mine—to detect whether the fan is running or not?

A. Yes, sir.

Q. Then tell the jury why it is that you, as fire boss, one of the most important positions, and in which the most responsibility is resting, are not able to tell this jury whether or not this fan was running at this particular time?

A. Well, I was traveling very rapidly and it was a very chilly, cold morning, which you all remember, and I never realized but what there was a good current of air traveling. I was cold and I did not realize whether the fan was running.

By State's Attorney Smith: Q. If I remember in your examination heretofore you have stated that when you went to the fan house you found the belt off, and that you could not put it on by yourself?

A. I could not.

Q. Did you try to put it on by yourself?

A. No, I did not because I knew I could not.

Q. Did you notice at that time whether the motor was running or not?

A. I did not.

Q. Do you know or not who has charge of the ventilation of this Mine No. 25? If so, state.

A. Myself and the mine boss.

Q. And the superintendent?

A. Of course the superintendent; to get material, we order material from him.

Q. Is it not a fact that the only duty of the electrician, so far as the ventilating machinery is concerned, is to see that the proper current or juice is



supplied, and to make necessary repairs to the motor upon the application of the superintendent, mine foreman or fire boss?

A. It is reasonable to think that if it was reported to the electrician that something was wrong with the fan that he would fix it. I could not demand him to fix it.

By Mine Inspector Parsons: Q. Mr. Stewart, it is evidently your duty, under the law, to make that demand or to notify the men of the danger that is in that mine and withdraw the men from the mine if any danger existed?

A. That is my next duty—to bring the men out of the mine—but I cannot demand the electrician to fix the motor.

Q. Mr. Stewart, is it the duty of the chief electrician to throw the switches and keep the fans and other electrical equipment in motion?

A. No, I don't know that it is his duty to do that; he has other men there to take care of the machinery.

By Juryman McIntire: Q. Mr. Stewart, state to the jury what time it was when Mr. Her left the employ of the Davis Coal & Coke Company?

A. Well, we will say about the first of November, 1906.

By Juryman McVetti: Q. Mr. Stewart, there is one thing that I am not clear on. You have stated that for over a year you have not had charge of any of the machinery. There was a question asked you if the chief electrician's duty was not limited to the supplying of "juice" and I believe you answered "yes." Well, then, who has, to the best of your knowledge, had charge of the electrical machinery—full charge and complete charge since that time?

A. Mr. Her had complete charge during his term here. He had complete charge of all machinery.

Q. Who has had complete charge since Mr. Her's departure.

A. I cannot tell that because Mr. Her, you know, made a practice of telling what power he had; that is how I came to learn that.

By Coroner Jones: Q. Who was in charge of the fan on the Sunday night before the explosion?

A. I cannot tell that; you will have to ask Mr. Riggleman that question.

By Juryman Rexroad: Q. How do you know you could not put the belt on and start that fan if you did not try it?

A. I have tried it; the wheel was too tall.

By Mine Inspector Parsons: Q. Mr. Stewart, how are you employed and in what capacity with the Davis Coal & Coke Company?

A. Assistant mine foreman.

Q. Are you employed as fire boss?

A. I was by Mr. McDowell, while he was superintendent.

Q. Are you now?

A. No, sir.

Q. What are your duties as such?

A. I am assistant foreman.

Q. What are your duties?

A. To assist the mine foreman.

Q. Are you supposed to take charge while he is absent?

A. Yes, sir.

Q. Are you supposed to be on duty on Sunday?

A. Whenever the mine foreman orders me, sir; I never refuse my duty.

Q. When he does not order you, you are not supposed to be out on Sunday?

A. I am not.

Q. He ordered you out on Sunday, February 3rd?

A. No, sir.

Q. Mr. Stewart, upon your direct examination, my recollection is that you stated before this jury that you were fire boss of Mine No. 25. You have now stated that you are assistant mine foreman and not fire boss. Please explain that to the jury?

A. Sometimes a man's recollection fails. I could not have a better proof of this statement than in Mr. Rexroad; he was my boss and he has acknowledged the truth of it.

Q. Then, Mr. Stewart, you are not now and were not employed as fire boss during the time of the explosion?

A. By Mr. Jones I was not, but I was acting as fire boss.

Q. Then, you were acting as fire boss during the time in question?

A. Yes, sir.

Q. Were you ever employed as fire boss at Mine No. 25?

A. I was employed by Mr. McDowell.

Q. At that time superintendent?

A. Yes.

Q. At what time and by whom were you relieved from that duty?

A. I will tell you the truth of it: I never was relieved properly, I don't think, because there was no man appointed in my place; but he ordered Mr. Rexroad to put me on the time sheet as assistant foreman. I think the letter is in the office today.

Q. Now, then, upon the last two statements you have made you still consider yourself fire boss at No. 25 mine, do you not?

A. I am now legally fire boss, being reappointed by General Superintendent Ott.

By Mine Inspector Bratt: Q. Did you not always regard yourself as fire boss there?

A. I did.

Q. And represented to me that you were the fire boss?

A. I was waiting on my successor to be appointed; legally I was out of the job.

Q. Mr. Stewart, after you saw this letter or heard this telephone message about being assigned as assistant mine boss, did you receive orders from the mine boss as an officer superior over you?

A. I received my orders from Mr. Rigglesman.

Q. You received orders from the mine boss at the time of the explosion?

A. From Rigglesman, yes, sir; anything he asked me to do I saw it was done for I done it myself.

Q. Did he tell you each day what to do?

A. Oh, yes.

Q. You considered yourself as simply his assistant?

A. That is right, sir.

By a Juryman: Q. Mr. Stewart, how many safety lamps have you?

A. I have always had two safety lamps.

Q. Where were you accustomed to leave these lamps?

A. Well, sir, I kept one in the mine at the North heading, as you turn off the main heading, I would say a thousand feet from the pit mouth, and I kept one in the check house. About two months ago some one filled the lamp I keep in the check house with machine oil, and I took it out of there and took it down to the engine room, and I keep it in the engine man's press where he keeps his tools.

Q. Was it there on the morning of the explosion?

A. It was, sir.

Q. Which one did you use?

A. I used the one I keep in the mine.

Q. Did you use an open lamp at all in the examination of the mine that morning?

A. Oh, yes; I used an open lamp, sir. But you must understand that when I got to the last cross-cut I laid the open light back, took the cap off my safety lamp and went up with my lamp and examined the working places with the light in my hand.

By Mine Inspector Parsons: Q. Mr. Stewart, you say you were reappointed fire boss by Mr. Ott. When?

A. Yes, sir; Mr. Ott reappointed me legally after the explosion and told me he would get me one of the Wolfe lamps, Mr. Parsons.

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RUDOLPH BERKLEY, a witness of lawful age, being first duly sworn, testified as follows:

## Testimony of Rudolph Berkley.

Examination by State's Attorney Smith:

- Q. Please state your name?  
A. Rudolph Berkley.  
Q. For whom do you work, Mr. Berkley?  
A. I work for the Davis Coal & Coke Company.  
Q. How long have you worked for the Davis Coal & Coke Company?  
A. Well, the second day of March that is coming, it will be two years.  
Q. What particular kind of work do you do, Mr. Berkley?  
A. I am pump man.  
Q. Do you have charge of the ventilating machinery?  
A. Well, I used to have, but last fall like Mr. Her and Mr. Jones told me that I not put oil any more on this fan, they would put another man in charge of it.  
Q. What have you been doing since that time?  
A. Well, I tend to my pumps.  
Q. What kind of pumps are they, Mr. Berkley?  
A. All air pumps.  
Q. Air pumps?  
A. Yes, sir.  
Q. Were you running the pumps on Sunday?  
A. Not last Sunday. Last Sunday I be off for first time in a year if I am not mistaken.  
Q. Who was running the pump?  
A. I do not know who run it that day.  
Q. To whom did you report that you would not work on Sunday?  
A. Well, Saturday morning I went over there; I had a very sick child at home with fever. I went over there and met Mr. Jones at the foot of the hill and he told me, "We can hardly do without you this day but see Mr. Rigglesman." So I went and talked to Mr. Rigglesman when he told me, "We try to do without you;" and I told him better see if he get someone for tomorrow; but he told me afterwards I never told him that and it must be a misunderstanding. Then lots of coal come out of the mine when I was speaking to him.  
Q. Then, so far as you know, Mr. Berkley, there was no one in your place on Sunday?  
A. I do not know.  
Q. Who worked in your place on Saturday, if you know?  
A. I do not know.  
Q. Have you since learned who worked in your place?  
A. No, I never inquired.  
Q. Do you know whether or not the fan was running on Sunday?  
A. I do not know; I was not there.  
Q. What was the last day that you worked?  
A. Friday.  
Q. Was the fan running all right that day?  
A. Yes, sir.  
Q. Had you been having any trouble with it before that time?  
A. Well, not this winter that I can say once, New belt on fan; no trouble this winter.  
By Jurymen Helmick: Q. Did you come to work on Monday morning?  
A. No, I did not come to work on Monday morning; then my wife was sick and had sick child there.

WILLIAM DICE, a witness of lawful age, being first duly sworn, testified as follows:

## Testimony of William Dice.

Examination by State's Attorney Smith:

- Q. What is your full name?

A. William Dice.

Q. What position do you hold?

A. Running the rope haulage and attending to the air compressors, and I attend to the boilers on Sunday.

Q. You may state whether you were at your post of duty on Sunday?

A. I was at my post of duty on Sunday.

Q. You may state at what time you pulled the switch on the fan on Sunday?

A. I pulled the switch, to the best of my knowledge, about half past two on the fan on Sunday. I pulled the switch at that time for to save burning the motor for to get the power for the lights in the engine house because we get our power for these lights from the same line.

Q. Do you know what time the fan stopped?

A. No, sir; I do not. I was working in the boiler house. At about 1 o'clock I was over to the house to get my dinner. I suppose it was close on to half past two when I came back and saw the power was off. I went and pulled the switch to save burning the motor in case the power should come on.

Q. Do you know what time the power came back on?

A. Near about 6 o'clock I believe it came back on. There was no pumper and I went out to get the power; so I ordered the power for the lights when I went back home.

By Mine Inspector Parsons: Q. In case the power came back on and the switch being pulled the fan would not start?

A. No, sir.

Q. Did you replace this switch which operated the fan?

A. No, sir; I left the switch out so that the man who had charge of the fan that night, at any time he came out to start the fan, would have the power to start it.

Q. The fan, Mr. Dice, as far as you know, was not in motion when you left the plant?

A. No, the fan was not in motion when I left the plant.

Q. Who attends to the machinery at night that you have charge of in the day time?

A. Mr. John Chidester.

Q. Did Mr. Chidester report for duty before you left the plant on Sunday night?

A. Yes, sir; he was on duty before I left.

Q. At what time in the morning do you report for duty when working day shift?

A. At six o'clock.

Q. Did you report for duty on the morning of the disaster at six o'clock?

A. Yes, sir.

Q. Was the fan in motion when you reported for duty?

A. I do not know; I do not have charge of the fan at all.

Q. Do you know whether or not, at the time you reported for duty, the current was on the line?

A. Yes, sir; the current was on the line.

Q. You will tell the jury whether or not you replaced the switch which you had displaced, on Monday morning when you reported for duty?

A. No, sir; I had no business to replace it. I pulled it out simply to keep it from burning out the motor. I done it for an accommodation, and to get the power back.

By Mine Inspector Bratt: Q. How long was the power off before you pulled the switch?

A. I cannot say; I don't know how long it was off.

Q. Did you report to anyone that you had pulled the switch?

A. I reported to the night man that I had pulled the switch and I ordered the power back?

By Mine Inspector Parsons: Q. Now, Mr. Dice, you will please tell the jury who this night man was that you reported to that you had displaced the switch?

A. I reported to Mr. Chidester that I had pulled the switch and I would have the power thrown on when I went over to the power house.

Q. Tell the jury whose duty it is to attend to the placing and displacing of the switch mentioned, which regulates the current that turns the fan?

A. As I understand, it is the pumper's place. The night pumper was the man supposed to start the fan.

Q. Is Mr. Chidester the night pumper?

A. No, sir; he is my "buddy" on the compressor; he runs the compressor at night.

Q. You will please tell the jury who the night pumper is?

A. I do not know; he is a Polish fellow.

Q. Will you look around and see if he is here?

A. Yes, sir; he sits right over there.

By State's Attorney Smith: Q. Do you know, Mr. Dice, whether the current was turned on the fan on Monday morning when you went to work?

A. I don't know if the fan was in circulation when I went or not.

Q. Can the current be turned on from the mine as well as from the power plant?

A. The power has to be turned on from the plant as long as we have the lights, but there is a switch in the fan house and you can't tell by us having the lights in the power house whether the fan is running or not.

Q. Then to make the current continuous the switch had been replaced in the power house?

A. I had the switch put in on Sunday evening.

Q. And you can't tell whether the current was on Monday night or not?

A. The current was to the fan, but whether it was running or not I do not know.

Q. What time Sunday evening did you have the switch put in?

A. About fifteen minutes past six; may be before that.

Q. What was the condition of your motor on Sunday evening when you left?

A. I don't know; I have not charge of the motor power.

Q. Who had charge of the motor power?

A. This man Berkley had charge of the motor power on Sunday and the Polish fellow standing right back here had charge on Sunday night.

Q. How do you know that the switch was turned a quarter after six o'clock?

A. I told the man to put in the switch for the alternating current at No. 25 mine and he put in the switch.

Q. Do you know who turned the power on to the fan?

A. This man standing back here was supposed to turn it on; I don't know whether it was turned on or not.

Q. Was it turned on when you came to work at six o'clock Monday morning?

A. Not to my knowledge.

Q. Did this night pumper go on work before you left?

A. No, sir; I did not see him.

Q. Mr. Dice, do you know Mr. Stewart, the fire boss?

A. Yes, sir.

Q. Did you see him the morning of the explosion?

A. About half a minute after the explosion I ran up on the tippie. Mr. Stewart was standing at the check house door, and I saw, I suppose, five or six men come out of the mine with their faces cut right smart—I suppose by the air throwing them against the ribs and tracks—and I taken them down to the boiler house to wash the dirt off their faces.

Q. Do you know anything about what time Mr. Stewart goes to work, generally?

A. I do not know. I see him every morning when I get there. Most every morning I see Mr. Stewart anywhere along from half past six to twenty minutes to seven coming out of the mine.

Q. Going in or coming out?

A. He is always up at the mine, and his clothes look as if he has been to work.

Q. Did you see him on this morning in question, Monday morning, other than you have stated, at the check house?

A. Yes, sir.

Q. What time did you see him?

A. About half a minute after the explosion. When the explosion occurred I ran out of the engine house up on the tippie.

Q. Did you see him before the explosion occurred?

A. No, sir; it was a cold morning and I was not up there.

Q. I believe you stated that the belt was on when you left Sunday night?

A. Yes, it was on Sunday night when I left.

Q. Do you know whether it was on Monday morning when you reported for work?

A. I do not know.

Q. Now, you stated that the belt was on Sunday night when you left; you also stated that you had pulled the switch, at what time?

A. Half past two.

Q. Did you make any other visit to that fan house during that day?

A. No, sir.

Q. Then you do not know that the belt was on Sunday night when you left?

A. There was no one else there to put it off.

Q. Are you in a position—engaged in your other occupation there—of knowing absolutely whether there is anyone in or about that fan house?

A. If there is anyone there I generally see them.

Q. The door entering into the fan house, if I remember right, is on the opposite side of the building in which you are engaged at your other occupation?

A. Yes, sir.

Q. Then, Mr. Dice, if anyone were approaching from the side of the building in which you would have to enter the building (the fan house), you could not see him?

A. The only way that a man could get the belt off and the motor standing would be to take a knife and cut it off.

Q. Well, the fact of the matter is that you did not see the belt since half past two?

A. I did not see the belt after two o'clock on Sunday.

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FRANK JUZITIS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Frank Juzitis.

Examination by State's Attorney Smith:

Q. What time do you go to work on Sunday night?

A. Seven o'clock.

Q. What work do you do at No. 25?

A. Move machines and run pumps.

Q. Is it a part of your duty, Frank, to replace the switch and keep the fan in motion?

A. No.

Q. It is a part of your duty to make the fan run?

A. I say no, not up in fan house.

Q. Then, Frank, did you not start the fan on Sunday night before the explosion?

A. No.

Q. Frank, do you know whether or not the fan was running on Sunday night before the explosion?

A. I come in work seven o'clock; that Straight fellow, he got killed, he go about three hundred feet inside; he tell me, "Frank, you go seventh butt No. 6 room;" he cut that place. I take him down horse for Frank.

Q. Well, Frank, that is not exactly the answer we desired, but I want to know whether or not you know if the fan was running during that night?

A. No was in the fan house. I hold light; smoke go straight up; the fan run; me push out.

Q. Frank, how many trips did you make to Smith heading that night?

- A. Three.
- Q. What time did you make the last trip?
- A. Half past two.
- Q. Could you tell, Frank, whether there was air in the mine that night?
- A. No.
- Q. Could you tell whether fan was running or not?
- A. No, I can no tell.
- Q. Frank, what kind of light did you have that night—open or closed?
- A. Open light.
- Q. How did your light burn?
- A. It burn a big light; a big lamp—driver's lamp.
- Q. Which way did the smoke go that night?
- A. All time go straight up.
- Q. Frank, when light burn straight, it make you think fan no run?
- A. No fan; no go.
- Q. Frank, fan go at all that night you at mine?
- A. I think he no go.
- Q. Frank, who tell you switch up in fan house?
- A. That old man that run compressor, Mr. Chidester.
- Q. Frank, you turn switch on?
- A. No, I was no up there and I no touch.
- Q. What time you leave mine, Frank?
- A. I come out five o'clock.
- Q. Whereabouts you live?
- A. I live Tony Row.
- Q. You see Mr. Stewart that morning?
- A. No.
- Q. What time you leave mine?
- A. Five after five o'clock, when that whistle, I leave the compressor house and go home.
- Q. Frank, who you leave in mine when you left?
- A. That Frank, cutting in straight.
- Q. Whereabouts he work?
- A. Wabash heading.
- Q. What time you go to work Sunday evening?
- A. I come to tippie about five of seven.
- Q. You were every place Sunday night?
- A. No.
- Q. Frank, you see anybody else about the mine when you leave the mine on Monday morning?
- A. No, I no see nobody. May be somebody go at four o'clock.
- Q. The cutter that you met—what section of the mine did he cut coal in? What place they work?
- A. He work in seventh left butt.
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JOE GOLIA, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Joe Golia.

Examination by State's Attorney Smith:

Q. State your full name?

A. Joe Golia.

Q. For whom do you work?

A. Davis Coal & Coke Company, No. 25.

Q. What kind of work do you do?

A. Digging and company work.

By Mine Inspector Parsons: Q. Joe, have you ever had any experience in work in mines that generate fire damp, or marsh gas?

A. Yes, sir.

Q. How much experience have you had?

A. I start to work in mines 1868—thirty-nine years ago.

Q. Joe, did you ever find any gas in the No. 25 mine operated by the Davis Coal & Coke Company?

A. Yes, sir.

Q. Please tell the jury where you found it?

A. I first found on third left, straight left.

Q. Joe, you will tell the jury at what time you found that gas—whether before or after the explosion?

A. Before.

Q. Joe, you will tell the jury how long before the explosion—about how long?

A. Four or five years ago; long time.

Q. You will tell the jury whether or not you have discovered any gas in the No. 25 mine in the last ten days?

A. I was on day work; on January 1st I start company work. Never was in the places and no see gas since January first.

Q. Have you been in the air course of the Smith heading building cross-cut? No see gas in the last ten days?

A. He said he was in there building gob brattices, and I no see gas. I asked a heading man how much gas he had in there. He said no gas in here; gas in air course.

Q. About how long has it been since you had that conversation with the heading man?

A. About ten or twelve days, if not more, before the explosion.

Q. Joe, have you been in that section of the mine since the explosion—in that heading or air course?

A. Yes, sir; I was in there.

Q. You will please tell the jury whether or not there was any standing gas, or any gas feeder or feeders in that heading or air course?

A. I was in third left Smith heading; I was with Mr. Stewart seven o'clock or half past six; the after damp was all cleared; no gas at all.

Q. And you heard no gas in there?

A. I heard something in the water. I say to Mr. Stewart, "Here is gas." He say to me, "It is the pipe." [Meaning the air pipe]. I say to Mr. Stewart, "No, sir; no pipe here, this is gas." This was in the bottom; I no find gas at top.

Q. Now, Joe, you will tell the jury whether or not yourself and other workmen had constructed any brattices or any other means to conduct or divert that air current up to the cross-cut within six feet of the face of the air course in which you discovered this gas feeder, before you entered therein for the purpose of examining the place?

A. Yes.

Q. The air was passing up through the cross-cut?

A. Yes.

Q. Joe, you will tell the jury whether or not you think if the air was not passing through that cross-cut, if that feeder was sufficient to produce that accumulation of gas in that place?

A. Sure.

Q. You will tell the jury how far it is possible to hear that feeder giving off gas?

A. Something like forty or fifty feet.

Q. Do you think that there was lots of gas coming?

A. I think so.

Q. Joe, you will tell the jury whether or not, if the fan had stopped sometime during Sunday and was not started until immediately before the explosion or just after the explosion, this feeder would generate enough gas to cause the explosion and do the damage which we witnessed in that mine?

A. Sure.

Q. In your experience as a practical miner of many years do you think there had been an explosion of gas in the second left heading off the Smith, at or near the point where we found the body of the man colled "Nosy?"



A. Yes, no gas be there; must come from third.

By Mine Inspector Bratt: Q. You remember where you and I went in there and found the gas in the third left butt off the Smith?

A. Yes, sir.

Q. Then what did we do? We constructed a brattice to put the air around there and take the gas out, didn't we?

A. Yes, sir.

Q. Do you remember where we found these two men on the heading?

A. Yes.

Q. Did you notice whether they were burned much or not?

A. I do not know; I never looked at the men.

By Mine Inspector Parsons: Q. Joe, tell the jury whether or not, in your judgment, you thought there had been a marsh gas or fire damp explosion in that mine?

A. It was marsh gas.

Q. Now, from the general appearance of the mine, do you not think there had been a rather large accumulation of marsh gas in there to cause the destruction and loss of life that we witnessed through there—a rather large accumulation of it?

A. Yes.

Q. Do you think where there was not any gas that a charge of dynamite, shot in the solid, would produce gas enough to kill all of those people and wreck the mine in the condition we found it?

A. No, if no gas it would not explode.

Q. You don't know whether or not the fan was running Sunday and Sunday night?

A. I don't know.

Q. From your experience as a practical miner and a man experienced in explosive gasses, do you think it possible that the fire boss twenty minutes before the explosion could have advanced to the face in these places and made a thorough test with the safety lamp, and brush out all the accumulated gas with his cap that he found in the places?

A. I could not do it.

Q. Do you believe that any man did go into this third butt entry from twenty to thirty minutes before the explosion and go to the face with a safety lamp and brush with his cap all the gas that had generated in that place that caused that explosion?

A. I guess there is too much.

Q. In making the examination of the mine with the inspectors did you find any evidence of an explosion of gas other than in the second left off the Smith—that is where we found "Nosy"—and the third left—that is the place where the gas feeder is up there—and the other place that you visited in company with Mr. Bratt, the inspector, and Mr. Brydon, the general manager? Other than these three places did you find any evidence of heat and an explosion of gas, other than the natural concussion?

A. Only in three places: second left, third left and North heading.

Q. The bodies found on the butts turning off the left hand side of the main entry, what, in your opinion caused their death?

A. They got no air; smothered to death.

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MONDAY, FEBRUARY 11th, 1907.

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JOHN W. CHIDISTER, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of John W. Chidester.

Examination by State's Attorney Smith:

Q. Mr. Chidister, by whom are you employed?

A. Why, by the Davis Coal & Coke Company.

Q. What position do you hold with the Davis Coal & Coke Company?

A. I run the air compressor at night.

Q. Are you the same J. W. Chidister who does the same work at night that Mr. Dice does during the day?

A. Yes, sir; he is my relief; he is at day and I am at night.

Q. State whether you were on duty on Sunday night, February 3rd?

A. I was.

Q. What time did you leave on Monday morning?

A. I was relieved at 6 o'clock but I did not leave very quick that morning, because I was talking in conversation with Mr. Dice at the time of the explosion. I heard the stones hitting the building, or coal or something.

Q. Did you have any conversation with Mr. Dice relative to the fan before he left on Sunday evening, or the evening when you came on work?

A. Not to the best of my knowledge.

Q. Did he or not tell you that he had turned the power, or current, off of the fan?

A. He did not to the best of my knowledge.

Q. Do you know whether or not the fan was running on Sunday night?

A. Well, only in one way; the lights went off; we got the power off the same line for the lights in the engine room, and the lights went off.

Q. About what time?

A. Well, I did not look exactly, but it was in the early part of the night. I could not tell the exact time, because I did not look.

Q. How long did these lights remain off?

A. Well, they were pretty much off until something like four o'clock. As I was going to tell you, the fireman went over to the electrical power house to see the trouble.

Q. During this time do you know whether the current was turned on the fan or not? Mr. Dice has stated that he turned the current off at half past two on Sunday afternoon. Did you see any one you know of turn the current on again?

A. Not that I know of; I had no authority to.

Q. You have stated that the current was off pretty often until four o'clock?

A. Something about there, as near as I can tell.

Q. Do you mean by that the current would come on and then go off?

A. It came on several different time, but a very short period at a time.

Q. Do you know whose duty it was to turn the current on the fan?

A. My understanding is that the pumper attends to it; that is my understanding—the man who tends to the pump. I have heard that said; I do not know that positively.

Q. Did you learn, Mr. Chidister, what was the matter at the power plant that the current was off on Sunday night?

A. Well, I can tell you what I heard: Arthur Bruce, the fireman, when he came back, told me the feed pump had broken down at the boiler house and they could not get any water in the boilers and consequently had to bank the fires. Also, when I went over myself in the morning, as I told you, the electrical engineer told me the same story, but that they had water in part of the boilers and they would be able to give me lights in a few minutes; and we had it from that out until morning.

Q. Were you about the fan house after the explosion?

A. No, sir; I was not.

Q. As I understand this switch that Mr. Dice threw off is situated in the fan house?

A. It is. I was over at that switch when I went over to the power house just about four o'clock, as near as I can tell, and the fan was not running. That is the only time I was there during the night myself.

Q. Did you find the switch safe for him to turn the power on when you went over?

A. Yes, sir; and the fireman says the same thing, for I asked him last night.

Q. Whom did you tell that the current was off of the fan—anyone?

A. I went to the electrical engineer in the power house, so that it would be

safe for him to turn the power on at any time and would not burn the motor in the fan house.

Q. Did you tell anyone about the mine that night that the power was off the fan?

A. None but the pumper, I do not know his name. [Frank Juzitis]. I told him the power was off.

Q. Now, state, Mr. Chidister, as well as you can remember, just what you told Juzitis that night, and when?

A. I told him the power was off the line—that we had no electricity. I think it was about midnight; something near that time, I think. He could see it himself as well as I; we had no lights.

Q. Whose duty is it to oversee and look after these things at night, all connected with the mine? Whose duty is it?

A. Really, I don't know. I don't know whether there is anyone, and whether there ain't; I could not say.

Q. Whose orders are you subject to?

A. The superintendent, whoever he is, would be my superior of course, and James Dice, the head machinist; that is the one I go to if anything is wrong.

Q. Did you see anything that night of the mine boss or superintendent?

A. I don't remember that I did that evening; I don't think that I saw him, to the best of my knowledge, that evening.

Q. Did you see Mr. Stewart when he went to the mine that morning?

A. I did not. I saw him immediately after the explosion—as quick as I could get up to the pit mouth. He said that he had just come out of the pit mouth, and he said, "My God, look at this." He was the only man in sight I saw just at that time; he was the only man I could see. He had his lamp burning.

Q. Do you know about what time the lights came on that morning?

A. Something near four o'clock; I could not give it exact because I did not look at my watch.

Q. Mr. Chidister, tell the jury whether or not the fan was running at the time of the explosion, if you know?

A. I could not say because I was not up to the fan house; it sets away up on the hill. I could not say it was or was not.

Q. Tell the jury whether or not you assisted in any kind of work in or about the fan house shortly after the explosion?

A. I was not at the fan house after four o'clock.

Q. Then, as far as you know, the fan was not running during the night?

A. As far as I know it was not running; I was only there at one time—between three and four o'clock. It was not running at that time and there wasn't any power on the line to run.

Q. Now, who gives you your instructions as to your duty?

A. Well, Jim Dice told me at the time when I went to running the compressors that I was to run the compressors and that was all. He took me to see my compressors and told me that was the place I was to work, and I went to work that night.

Q. Who employed you to work for the company?

A. Mr. Dice.

Q. How many superior officers have you?

A. I do not know how many. Well, Jim Dice, Mr. Jones that's dead, and there is a Mr. Brydon and a Mr. Ott; and of course if the mine foreman came and told me there was anything wrong I would shut it down.

Q. If anyone told you, I presume, there was anything seriously wrong, you would shut down the compressors or any part of the machinery over which you had charge?

A. I certainly would.

Q. But the point is, how many superior officers have you? How many men are there—if they came in and told you to quit and go to the office and get your money—you would do it?

A. The parties I mentioned above.

Q. If the mine boss discharged you would you quit?

A. I would go to the superintendent and see if he had the power to do it.

Q. Now, Mr. Chidister, tell the jury whether or not you take any direct orders from the mine foreman?

A. I never have had any.

Q. Have any of the parties named by you as your superiors told you that it is your duty—a part of your duty—to attend to the running of that fan?

A. No one has ever told me anything of the kind to the best of my knowledge.

By a Jurymen: Q. Who did you understand had charge of the fan at night?

A. I have heard that the night pumper attends to the fan.

Q. You never heard any of the officials of this company tell that young man back there to give his attention to the fan, and someone just told you that was his duty?

A. No, I never heard anyone tell him.

Q. You state you were talking to Mr. Stewart immediately after the explosion?

A. Within a few minutes; as soon as the air line broke we slowed down the compressors to a normal speed and then rushed to the tippie as soon as possible.

Q. Did he leave you?

A. He went into the mine and wanted me to go along.

Q. He did not go to start the fan beforehand?

A. Yes, he told me that he had just started the fan; I told him to excuse me—that there was an after damp followed it.

Q. Mr. Stewart started the fan?

A. He said he started the fan.

Q. Mr. Chidister, tell the jury whether there is a locker over there in which Mr. Stewart keeps his safety lamp?

A. He does sometimes; it is there sometimes and sometimes it ain't.

Q. If he should have come into the building after his safety lamp that morning for the purpose of examining the mine, you would have seen him, would you not?

A. He was large enough to see; I did not see him.

Q. Did you see Mr. Stewart's safety lamp at any time during that night?

A. I saw his safety lamp in the cupboard that night, hanging up back of the back part.

Q. He did not come in to get it?

A. Not that I saw

Q. What time of the night, or in the night, were you at the boiler house?

A. I was there frequently.

Q. Were you at the boiler house between five and six in the morning?

A. Only about four o'clock, when they put the lights on. I went in and told the fireman that we would have lights from that on—that they had water in part of the boilers.

Q. Mr. Chidister, when you first met Mr. Stewart on that morning had he his safety lamp or an open lamp?

A. He had an open lamp, burning, when I first saw him.

Q. Now, I want to know whether or not if at any time heretofore you ever saw this safety hanging in the locker?

A. Yes, sir.

Q. Now, the boiler house you speak of is not the building in which the locker before mentioned and the safety lamp is usually kept—

A. No, it is two hundred feet away.

Q. You say you were off duty at six o'clock in the morning but you staid around until after the explosion. Did you remain in your place of employment—that is, where you had been before—until you went over to the tippie and met Mr. Stewart?

A. I was not out of it until I left and went upon the tippie.

Q. State what time this explosion took place and how you know?

A. Well, I looked at my watch just before and remarked to my partner, as he relieved me, that I had better go and get my breakfast; and just a minute or two after that the explosion occurred.

The witness, Frank Juzitis, being recalled for further examination, testified as follows:

### Frank Juzitis Recalled.

Examination by State's Attorney Smith:

Q. Who hired you to work for the Davis Coal & Coke Company?

A. Mr. Campbell, former mine foreman.

Q. What Mr. Campbell tell you to do, Frank?

A. Haul coal and move machines.

Q. Nobody tell you anything else to do, Frank?

A. No.

Q. Who your boss in mine?

A. Night shift?

Q. Yes.

A. Work for Mr. Stewart.

Q. Who your boss now?

A. No one but myself.

Q. Nobody tell you to run fan?

A. No.

Q. Does Mr. Riggleman give you instructions; he your boss?

A. Yes.

Q. Mr. Riggleman tell you run fan?

A. No.

Q. What Mr. Riggleman say you about work?

A. Mr. Riggleman nothing; no tell. Mr. Campbell tell me haul coal and move machines. Mr. Riggleman he no tell me nothing.

Q. You know why night compressor man tell you fan to run?

A. No, he no tell me nothing; just he ask me fan running or not. I tell him I don't know.

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LEE OTT, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Lee Ott.

Examination by Mine Inspector Parsons:

Q. Mr. Ott, what company are you working for and what are your duties?

A. I am working for the Davis Coal & Coke Company in the capacity of general superintendent. My duties are to keep a watch over the officials lower down than me—superintendents, mine foremen, etc. I have charge of the mining boss through the mining superintendent.

Q. Now, Mr. Ott, what are your rules and instructions to your mine officials in regard to ventilating machinery—as to how it is to be run, and who is to have charge of it and supervision over it?

A. The superintendent has direct charge of the mine foreman, and we have furnished all these officials with copies of the mining law with instructions that they run their mines in accordance with the law. The mine foreman has absolute charge of the mine in every case as to ventilation, except where there is a fire boss, when the law gives him absolute charge. It is our understanding that in case he finds the mine in an unsafe condition he has authority to stop any one from enteripg the mine until it is made safe.

Q. Now, Mr. Ott, you in company with myself and several others made an examination of your No. 25 mine after the explosion. Do you think that mine had been properly examined and a true report made of its condition on the morning of the explosion, from what you found on the inside of that mine?

A. That is a pretty hard thing for me to draw a conclusion from. I don't think the mine was carefully examined.

Q. Do you know or not whose duty it was to supervise the men working on Sunday night?

A. The mine foreman's duty.

Q. If there was anyone at work in the mine that night should the mine foreman have been looking after them?

A. He should have looked after them in a way; he should have had an understanding with them; he should have given them instructions as to what they were to do, and the fire boss should have told them whether it was safe or not. The fire boss has absolute charge so far as the safety of the mine is concerned.

Q. Mr. Ott, is Mr. Stewart employed by the company as a fire boss?

A. That is the way his name appears on the rolls, as far as I understand it—as fire boss and assistant foreman.

Q. Were his duties as fire boss as prescribed by the State law neither restricted nor curtailed, as far as you know, by the order of the company?

A. No, sir; they were not.

Q. I want to ask you one question in regard to the mine foreman: You stated this man was not under the direction of the mine boss. Was it not his duty to see that the fan was running and to see all was right before these men went in?

A. It certainly was his duty.

Q. It was also the mine boss's duty, when Mr. Berkley said he would not be out on Saturday, to put a man in his place?

A. It certainly was.

Q. Whose duty was it to see that everything was running all right on Sunday?

A. Well, it would be the duty of the mine foreman to see that his subordinate was at his place.

Q. Who is the mine foreman?

A. Rigglesman. He then reports to the mine superintendent and the mine superintendent to me.

Q. Then if there was nobody in charge of the fan during the day whose neglect was it?

A. The mine foreman's.

Q. In other words, you mean, Mr. Ott, that it is the duty of the mine foreman during the day to see that the men are at their posts of duty and doing their work, and that the machinery connected with the mine is running?

A. Yes, sir; he is not handicapped in anything.

By Mine Inspector Bratt: Q. Now, Mr. Ott, I would like for you to state whether you were in the mine after the explosion and assisted in the recovery of those bodies?

A. I was.

Q. From the evidence you saw there of the explosion, what in your opinion caused the explosion?

A. Well, from what I learned from our examination, I am of the opinion that the explosion originated in the air course of the third left butt off Smith heading from a shot fired by the man that we found in the crouching position, in the empty chute to the same heading.

Q. In your opinion was it a gas explosion?

A. From the evidence I got on examination my opinion is that there was some gas there.

Q. Has Mr. Stewart always been rated on the pay rolls as a fire boss?

A. I always understood it that way, and regarded him as such, and if anyone had asked Mr. Stewart's position at No. 25 I would have undoubtedly said he was fire boss. I always regarded him as that.

Q. You heard Mr. Stewart say you reappointed him on Thursday or Friday after the explosion. Did you find out he was not fire boss or why did you reappoint him?

A. No, sir; I did not find out any such thing and I don't remember in my conversation with Mr. Stewart whether anything was mentioned in regard to reappointment; but I do remember of myself and Mr. Brydon talking the situation over and concluding that we would appoint a deputy to accompany Mr. Stewart on his rounds—a man by the name of Joe Golia.

Q. Then you did not reappoint him to that position?

A. I did not understand it that way. I always understood that he was fire boss. I don't remember whether I gave him any more authority than he had previous to that time.

FRANK PARSONS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Frank Parsons.

Examination by State's Attorney Smith:

Q. Mr. Parsons, state what official position you hold?

A. I am the State Mine Inspector for the Second District of West Virginia.

Q. How long have you held said position?

A. Since August 1st, 1905.

Q. Mr. Parsons, state whether you made an examination of this mine, known as No. 25, after the explosion?

A. I made an examination of the bigger part of the mine over which the explosion extended.

Q. You will please state what in your opinion caused the explosion?

A. I am of the opinion it was a typical explosion of marsh gas—fire damp.

Q. From what do you base your opinion?

A. From the evidence that I found on the inside—from the deposit found on the props, cars, ribs and traveling ways—and from the condition and position in which the bodies were found.

Q. You will state where that explosion in your opinion occurred?

A. It is my judgment that the explosion occurred with the ignition of the marsh gas, near the mouth of the entry which we have designated as third left off Smith, by coming in contact with an open light.

Q. Please describe as well as you can from the evidence displayed in that mine the direction in which the explosion traveled?

A. Well, the direction—it was both directions—but by means of additional explosions, the extent of the force, violence was greater coming up the Smith heading at the second left air course paralleling the same, and at that point it ignited a very large volume or accumulation of marsh gas—fire damp—which was deposited in this section of the mine. The force then traveled due down said second left to the inner section of the Smith; it thence went up to the Smith to the intersection of the main, and then up the main to the heading known as the Wabash, where it expended its force and violence on the intervening ribs and obstructions. I presume it went on up in there but I cannot state positively as I did not make an examination of that section. Now, a reason for this theory is the position in which the bodies were found near the entrance of said third left, and from the evidence that I found of the way the force traveled, this evidence consisting of the direction in which broken brattices, doors, and other things which the force encountered, were thrown. An other additional reason is—taken in connection with what I have already stated—that this point is the only reasonable place that it could possibly have been ignited. I believe this from what information I have been able to learn as to the direction in which the different employes traveled to get to their working places. I have learned that the two bodies found at the point which I have already indicated, which I have since learned were burned, in going to their working places would travel up the heading known as North entry to the point of intersection with the Johnson heading; from thence they would travel up the Johnson heading to the point where they encountered the gas and to the point where, in my judgment, the gas was ignited. To assist me in this solution I have listened attentively to the most of the evidence which has been produced before this jury. As has been stated by numerous witnesses, there is a large feeder of gas in the face of the air course paralleling the third butt entry, and by reason of the fan not being in motion this section of the mine was undoubtedly filled to overflowing with marsh gas. It is a well known fact that marsh gas being of lighter specific gravity than air is found at the top. Then this section of the mine known as third left off Smith going to the raise, would gradually fill to the extent of the difference of elevation at the entrance of the same and the face of the same before it would overflow. In overflowing the gas would go out of the heading on the right hand side, traveling from thence to the Smith, in my judgment to the second left air course, meeting en route no doubt the obstruction at the roof of the frame of the door which was originally across the Smith entry between the before mentioned air course and entry which would divert it as I have stated up the air course paralleling

the second heading off of the Smith, and at that point it is of much higher elevation than it is at the mouth of the same, which would cause an accumulation of gas to be found at this point, which we found evidence of by the condition in which we found the body of the employe known as "Neszy" and by other reasons, such as force displayed, destruction, etc. My theory as to the ignition of this second body of gas is that the feeder in the air course off the third heading, after filling to overflowing, as I have said before, this section of the mine—that it would keep on continuously giving off gas. The same quantity that it was constantly giving off would be traveling the entry known as the Smith entry to the point which I have already designated, where the accumulation evidently was. At the instant of the explosion, by means of this stream of flowing gas the entire accumulation was exploded, almost, if not quite, instantaneously, is my humble opinion.

Q. Mr. Parsons, did you in examining the mine after the explosion, see or notice the feeder that you had mentioned in the air course of the third left butt.

A. I heard it and saw the gas in the safety lamp. I did not advance closer. In my judgment, I would be safe in saying fifty feet.

Q. How long do you think, with such a feeder, it would take to accumulate sufficient gas to cause the explosion that there was in Mine No. 25?

A. Well, not being in a position to accurately determine that, I am not able to state; but I would not want to risk a feeder like that longer than one hour; if I did I would expect an explosion; but to what extent I am unable to state.

Q. You may state, Mr. Parsons, if in your opinion this mine was carefully examined for fire damp on the morning of the explosion, bearing in mind that the explosion occurred at 6:30 o'clock, and that the examination was made between 5:15 and the hour of the explosion? And if this mine was examined at that time what should the report be?

A. The report in my judgment should be that a very dangerous accumulation of gas was found in the section I have already mentioned; but as to whether or not that report was made, I am not able to say because I have not got the company's official record and I know nothing about that, but I do say that from the evidence produced before this jury, I don't think that report was made, and I don't think the mine was examined—that section of the mine, at least—by a competent fire boss.

Q. If that fan was running in this mine from half past 2 o'clock on Sunday, at which time the evidence shows the current was turned off, and it did not start to run before 6:30 o'clock, would not the air in that mine, even though there had not been any gas feeders, become very vitiated or impure, from carbonic acid, which the coal—open faces of the coal—would have given off, and which would have been aided by the exhalations of any men or animals, or by lights that were burning in the mine?

A. Well, it would not be dangerous, and by reason of its being Sunday and not many workmen employed inside the sanitary conditions would be rather good; there would be nothing wrong about it. There are several outlets and inlets—I think I saw two or three—and there would be nothing much wrong with that if it had not been for the gas. That would be my judgment. I would not think that the sanitary condition would be very bad.

Q. Now, I would like to know, Mr. Parsons, whether or not in examining this mine with a light, one would not be able to tell that the air was vitiated, even though there were no gas feeders giving off gas?

A. I would think in a mine considerably opened, he would not be able to detect any impurities in the air; but that any intelligent employe would know whether the fan was running by the absence of the passing current if he had been working in the mine four days.

Q. Mr. Parsons, state whether in your examination of this mine you consider the equipment sufficient to ventilate it when in motion?

A. Now, I will just say yes; the equipment is sufficient to keep it, I think, at least fairly well ventilated throughout this mine, if the brattices are properly constructed and made serviceable, and that it is sufficient to dilute and render harmless and carry away all noxious and dangerous gasses that are generated in that mine, provided that the equipment that I found on the ground is kept in motion.

Q. State, Mr. Parsons, whether you consider Mr. Stewart has sufficient qualifications for a fire boss?

A. If he has had the experience that the law requires, I would say, as far as



my knowledge goes, without hesitating, that he has; but as far as veracity and faithfulness go, I know nothing whatever about him other than listening to his testimony and by observations of his actions, which I assure you I was closely observing while we were making the recovery of the bodies.

Q. Do you believe that mine was examined that morning?

A. I don't believe it was, with a safety lamp, in that section of the mine.

DR. HOFFMAN, a witness of lawful age, being first duly sworn testified as follows:

### Testimony of Dr. Hoffman.

Examination by State's Attorney Smith:

Q. Doctor, tell what official position you hold with the Davis Coal & Coke Company?

A. I have been their physician for a number of years.

Q. State whether you examined all of the bodies that were taken from No. 25 mine?

A. I examined twenty-eight persons—three living and twenty-five dead.

Tom Polowicz, scraper, and his brother Frank, cutter; these two men were simply burned.

Felix Julian, check S45; skull fractured and burned; that is, the surface of the body more or less burned.

Charles Panepinto, check S38; skull fractured.

Oscar Allen, check S72; skull fractured and more or less burned.

Vincent (Jas.) Bottice, check S24; skull fractured; right leg broken near the knee.

D. R. Jones, superintendent; no burns; no marks of violence; small bruise on forehead, probably caused by falling on the ground; perhaps a little spot of blood on his ear.

John Sabowsky, scraper; right severely burned—face, arms, body and front of thigh; also fracture of bones of his face, left side.

Constantine Kaeolis, machine cutter; nose mashed; lip cut; burned from face down.

Paul Kerock, of Halstine, check S40; burned from head to foot.

Joe Beziac (Bisyauk, Bisjack), check S48; burned from head to foot; no bones broken.

Frank Shavitch (Shoshlatis), check 985; top of skull torn off; pelvis crushed; face and hands burned.

Frank (John) Beziac (Bizjark), check 986; no bones broken; burned from head to foot.

Adam Bermuda, check S09; practically no marks of injury on this man.

Joseph Arcari, check 932; superficial burns; not sufficient to cause death.

Tony Scarponi, check 919; slight burns; not sufficient to cause death.

John Scarponi, check 898; slight burns; not sufficient in themselves to cause death.

Sullivan Liberatori, check S06; this is the man known as "Nosy"; a young fellow about twenty years of age. Left leg, thigh, forearm and collar bones broken and badly burned.

Pasty Danjelas (Douglas), check S52; skull fractured; right leg broken; left hip fractured; burned all over.

Ralph Dandrea, check S58; burned all over; no bones broken.

Frank Ferrin, check 955; slight bruises on nose and forehead; injuries not sufficient to cause death.

Harry Lastropo, check 954; superficial burns; not sufficient to cause death.

Ernest Bennemento, check S79; left side crushed; skin of face burned and abraded.

John Serpono, check 963; right arm and leg broken, pelvis broken; forehead cut; face abraded.

Jack Stucine, check 953; left front, left knee, left side of pelvis broken; arm and forearm mangled; right arm and forearm broken; face and head cut; left chest crushed.

Q. Doctor, did all of these men die from the effects of the explosion in Mine No. 25?

A. Mr. Smith, that technically would not be a question for me to answer, if I may be pardoned. The supposition is that they did.

Q. Doctor, will you tell the jury from your professional experience, about what part of these men died from asphyxiation?

A. I would think there were nine, not including Mr. Jones, overcome by the after damp.

Q. How many do you think, doctor, were burned sufficiently to cause death?

A. It would be hard to decide that question.

Q. Did you notice any of the bodies sufficiently burned to produce death?

A. Yes, sir; but I don't remember how many.

Q. Well, state whether or not you think the body of "Nosy" was burned sufficiently to produce death?

A. Badly burned and badly injured. His injuries and his burns were sufficient to cause a very speedy death, but I could not state that either one would have done it at once.

JOHN FLYNN, a witness of lawful age, being first duly sworn testified as follows:

### Testimony of John Flynn.

Examination by State's Attorney Smith:

Q. Mr. Flynn, by whom are you employed?

A. Davis Coal & Coke Company.

Q. What position do you hold with them?

A. Repairing machinery.

Q. How long have you held this position?

A. Five years.

Q. Were you working on Sunday, the 3rd day of February?

A. In the fore part of the day.

Q. State, Mr. Flynn, whether it was reported to you that there was anything wrong with the machinery which runs the fan at No. 25 mine?

A. No, sir.

Q. Do you know, or not, whether there was anything wrong?

A. No, sir; I did not.

Q. Did you help start the fan after the explosion?

A. No, sir.

Q. Was it your duty to start the fan and keep it in motion?

A. No, sir.

Q. Do you know whose duty it is?

A. The night pumper's.

Q. How do you know that, Mr. Flynn?

A. He was left in charge.

Q. Who left him in charge?

A. Chief electrician George Her.

Q. When did Mr. Her leave him in charge?

A. I am not positive about that; I suppose it has been about six months ago or probably longer.

Q. Has he been in charge of it ever since?

A. Yes, sir.

Q. How long has this Polish man, Frank Juzitis, been a night pumper?

A. Just extra.

Q. Who is the regular man?

A. I cannot think of his name. [Rudolph Berkley.]

Q. Is he the night pumper or day pumper?

A. I do not know.

Q. State, Mr. Flynn, if a certain part of that machinery was out of repair if it should have been reported to you?

A. Yes, sir.

- Q. Was it reported to you?
- A. No, sir; it was not.
- Q. Do you know anything about its being out of order?
- A. No, sir.
- Q. Did you assist in starting the fan after the explosion?
- A. No, sir.
- Q. Do you know who did start it?
- A. No, sir; I don't.
- Q. Do you have any knowledge of what caused the motor which drives the fan to be burned out, and when it occurred?
- A. Yes, sir.
- Q. Please tell the jury what you know about that?
- A. It was a ten horse-power motor with a twenty-horse-power pulley which caused the motor to be burned out, to the best of my knowledge, at about 2 o'clock p. m. after the explosion.
- Q. Well, Mr. Flynn, did you ever have any cause to repair any part of the electrical equipment over there about the fan, other than replace the motor above mentioned after the explosion?
- A. Yes, sir; I have.
- Q. In case you find that the equipment is being badly handled who would you give instructions to as to the proper manner of using them?
- A. The carpenter, L. W. Arnold.
- Q. Then, Mr. Flynn, has that been a part of your instructions from your superior officers—that "Bud" Arnold has charge of that part of the equipment?
- A. Yes, sir.
- Q. Who gave you to understand this?
- A. Mr. Jones, superintendent.
- Q. Now, in case that you suspect the equipment has been badly handled in the night time who do you give instructions to after repairs, as to how to properly handle that part of the machinery?
- A. I have not been called out to repair that machinery on night shift for six or eight months.
- Q. Mr. Flynn, is it your understanding that that fan is kept continually in motion during the night?
- A. Yes, sir; it is.
- Q. Mr. Flynn, can you tell the jury who attends to the oiling of that machinery?
- A. The carpenter, Arnold, looks after the fan in the day time; he oils it and sees that it is kept running.
- Q. Do you know whether or not Mr. Arnold was at his post and faithfully performing his duty on Sunday, the 3rd day of February, 1907—the day before the explosion?
- A. I could not say.
- Q. Do you know whether or not the night pumper—that you have designated as the man in charge at night—was attending to that part of his duties on the night of February 3rd, 1907?
- A. I could not answer that question.
- By a Juryman: Q. Jack, who is chief electrician?
- A. Well, since Mr. Her left there has not been any chief electrician.
- Q. Who was in charge of it, Mr. Flynn, since Mr. Her left?
- A. I have been doing the electrical part of it.
- Q. Who did you take orders from, Mr. Flynn?
- A. The superintendent.
- Q. Mr. Flynn, I would like to ask you one question: You say you were on duty Sunday, the 3rd?
- A. All the fore part of the day.
- Q. You don't know whether the electric current was on the wire that runs the fan at No. 25?
- A. No, I do not.
- Q. It is not your duty to know the current is on all the wires?
- A. No, sir; not unless I am notified.
- Q. Who was on duty, now, Mr. Flynn, after you left—who had charge of the electrical part?

A. There ain't no night electrician.

Q. Mr. Flynn, did anybody complain to you that the power was off and that the fan was not running during the day and night time on Sunday before the explosion?

A. No, sir; there was not.

Q. Have you heard since that time that the power was off?

A. Yes, sir.

Q. And the fan not running?

A. Yes, sir.

Q. Who was the power man and who had charge of the machinery?

A. A man by the name of Whistler, on day shift.

Q. If the current was off the fan and there were no lights in the boiler house at No. 25 on the night of February the 3rd, should that have been reported to you or not?

A. If it had been any electrical machinery broken down it ought to have been reported.

Q. Should it have been by reason of the water supply failing it would not have been reported to you?

A. No, sir.

Q. To whom should it have been reported then, if you know?

A. James Dice.

Q. Who runs the machinery at night, Mr. Flynn?

A. R. G. Wagner runs the machinery at night in the power house.

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R. G. WAGNER, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of R. G. Wagner.

Examination by State's Attorney Smith:

Q. Mr. Wagner, by whom are you employed?

A. The Davis Coal & Coke Company.

Q. What position do you hold with the Davis Coal & Coke Company?

A. Engineer.

Q. How long have you been engineer for the Davis Coal & Coke Company?

A. A little over a month.

Q. At what power house are you employed?

A. Thomas power house.

Q. You may state whether you were on duty Sunday night, February 3rd?

A. Yes, sir.

Q. State what trouble, if any, you had with your machinery?

A. I had no trouble with my part of the machinery.

Q. Was there any part of that machinery that was out of repair that night?

A. There has been one engine broken up in there since December sometime.

Q. Who besides yourself was at work in this power house Sunday, February 3rd?

A. William Brown.

Q. What does Mr. Brown do at the power house?

A. He is a helper in there.

Q. State whether or not the current was off the line running over to No. 25 mine?

A. That night? Yes, sir; it was.

Q. What caused it to be off?

A. We had no water.

Q. Water; you say you had no water? Do you mean the supply of water had given out or that the pumps were out of repair?

A. The pumps were out of repair.

Q. Is it a part of your duty to keep the pumps in repair?

A. No, sir.

Q. Whose duty is it to repair the pumps?

A. I do not know.

Q. To whom would you report that the pumps were out of repair?

A. To James Dice.

Q. Where was James Dice when you reported to him?

A. At home in bed.

Q. What did James Dice do?

A. He came down and got the pumps running again.

Q. What time was that you got the pumps running?

A. Well, I don't know exactly, but it was about between half past 1 and 2 o'clock I should say.

Q. Mr. Wagner, tell the jury whether or not anybody came over from the compressor power plant and informed you that the switch was turned from the fan over at No. 25 and that you could safely put in the plug which transmitted the current or power to the fan at No. 25 after the pumps had been repaired and you had sufficient steam to generate the power?

A. No, sir; not after the pumps were repaired.

Q. Did you turn on the current to this plant after you had sufficient steam to run the generators?

A. I did; yes, sir.

Q. At what time?

A. It was about a quarter past 2; I did not look at my watch, but it was close to that time.

Q. Mr. Wagner, had you ever been informed that you would probably—in turning on the current after the power had gone off that line, in case the switch had not been turned from the fan house—burn out the motor which propelled the fan?

A. Yes, sir; I have been.

Q. Then, Mr. Wagner, did you take the chance without any information from the mine in turning on this power?

A. No, sir; I did not.

Q. Had you been informed by anyone that it was safe to turn on this power?

A. I had; yes, sir.

Q. Who had informed you and at what time?

A. It was the night engineer over at No. 25; he runs the compressors, I believe; it was Chidister—about 12 o'clock.

Q. What time did these pumps stop?

A. A quarter or half past 11.

Q. What time did you come to work?

A. At 6 o'clock in the evening.

Q. Was the current on to the fan house when you went to work?

A. No, sir; it was not.

Q. Did you put it on?

A. No, sir; I did not.

Q. Was it your duty to put it on?

A. It was my duty to see that it was put on when I was notified.

Q. Were you notified?

A. At what time? About 6:30.

Q. Who put it on?

A. The helper, Mr. Brown.

Q. At what time did he put it on?

A. As soon as notified.

Q. How long did the current continue on, Mr. Wagner?

A. Well, sir, I pulled it off about 12 or a little before 12.

Q. Then according to your contention the current was off from the power house over at No. 25 mine about two hours?

A. Something like that; yes, sir.

Q. When you turned the power off was it your duty to report that fact to anyone?

A. No, sir.

Q. Did you report it to anyone?

A. No, sir.

Q. This engine that you speak of being out of commission, is it connected with the fan?

A. It is.

Q. Did you have sufficient power without this engine being in commission to

properly operate the electrical machinery, such as the fan motor, and what other equipment you have attached to your power plant?

A. That would be a hard question to answer, as the load varies. Sometimes we are overloaded to a great extent and sometimes we have not got a very heavy load.

Q. Mr. Wagner, do you ever have any difficulty along this line in the night time, by reason of the electric lights, etc., or does your trouble usually occur in the day time when they are hauling coal from the mines with the electric motors?

A. I know nothing about the day time; I do not work on the day shift.

Q. Now, Mr. Wagner, can you explain to the jury the reason why your plant is overloaded at times and at other times you are running light?

A. Well, if there is an engine or generator broken down we have to haul the engines left on the other machine and also we have to haul Coketon at night time, and that gives a pretty heavy load.

Q. Mr. Wagner, do you remember whether or not you were hauling Coketon on the night mentioned—and on the night of February 3rd and 4th—the night before the explosion?

A. I was.

Q. Well, was your power plant overloaded on this particular night?

A. No, sir; I don't think it was.

Q. Have you ever made any complaint to the management in regard to this overloading of your power in the night time?

A. No, sir.

By Mine Inspector Bratt: Q. You say the current was put on about what time?

A. About 2 o'clock as near as I can remember.

Q. Then was it—the current—off at any other time after that?

A. No, sir.

Q. What time did you leave?

A. Six o'clock in the morning.

Q. Had that engine been repaired would you have been using it on Sunday night, February the 3rd?

A. No, sir; I did not have steam enough to use what I did have.

Q. After you turned this power on at 2 o'clock Sunday night is there any reason why the fan should be running then, of the switch had not been pulled?

A. The only reason would be the switch being pulled at No. 25 or unless the motor was burned up.

Q. Now, I want to ask you if you remember of anyone calling on you about 4 o'clock on the morning of the explosion and asking you to turn on the current at No. 25?

A. No, sir; I do not.

Q. Were you there at that time?

A. I was.

Q. How many people came to you in the night about the power over at No. 25?

A. I only remember of two coming,

Q. Who were they?

A. One was the night engineer over there—Mr. Chidister—and the next time there was a colored fellow came and told me he was a fireman over there—Arthur Bruce.

Q. What time was Mr. Chidister over there?

A. Something after 12 o'clock.

Q. What time was Bruce there?

A. I suppose nearly 1 o'clock.

Q. You could not have that reversed could you—that the colored man came first and Chidister afterward?

A. No, sir.

Q. Did you see Dice, who works at No. 25, that night about 6 o'clock?

A. Well, about that time there were several came in the power house, but I did not know them.

Q. About what time did Dice tell you that the switch was turned so that the power could not be turned on to the fan, so that you need not be afraid to put the power on?

A. No one said anything to me.

J. F. BRATT, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of J. F. Bratt.

Examination by Mine Inspector Parsons:

Q. Mr. Bratt, what is your present position?

A. I am Mine Inspector of the Third District of West Virginia.

Q. How long have you held this position?

A. Since the first day of July, 1905.

Q. Have you ever made an official examination of mine No. 25, at Thomas, West Virginia, belonging to the Davis Coal & Coke Company?

A. Yes, sir; a number of times.

Q. How long since the last official examination?

A. The last inspection I made at No. 25 mine was on the 18th day of December-1906.

Q. Please tell the jury the conditions as you found them at that time as to ventilation and dangerous and noxious gasses?

A. Well, as far as any noxious or dangerous gasses were concerned, I found none in any quantities. I found a little marsh gas in small quantities.

Q. Mr. Bratt, would you consider the equipment as to ventilating machinery at this plant sufficient to produce current enough to dilute and render harmless and carry away all the dangerous and noxious gas which it generates, provided, of course, it is properly kept in motion and brattices properly constructed and made serviceable to insure a good distribution throughout the workings?

A. I do.

Q. What condition did you find the mine in on the last official visit?

A. I will submit a copy of my official certificate which I left with the management of the Davis Coal & Coke Company, in evidence, as to the condition in which I found this mine.

"Thomas, West Virginia, December 18th, 1906.

"To the Davis Coal & Coke Company:

"On the 18th day of December, 1906, I inspected your mine No. 25, in Tucker county, and found it to be in the following condition: As to ventilation, rather poor; as to drainage, only fair; as to timbering, good; as to gasses, small quantity of fire damp; as to general safety, fairly good. I recommend the brattices be overhauled and kept up closer to the working faces.

Very respectfully,

"J. F. Bratt, Mine Inspector Third District."

That is the condition I found the mine in on the 18th day of December.

Q. Now, Mr. Bratt, in your certificate there you say, "ventilation rather poor," and in your recommendations you recommend that the brattices be made more serviceable—all overhauled. Now, Mr. Bratt, if the brattices were made perfectly serviceable throughout, and the fan kept running at the speed at which you found it on the date of your visit, then what is your judgment as to its condition as to safety?

A. I would consider it good. I want to make a statement in regard to the ventilation: At the intake of that mine that day there was 39,000 cubic feet of air going into the mine, and if that was properly distributed throughout the workings it would keep the mine, in my opinion, in a perfectly safe condition.

Q. Mr. Bratt, you in company with Mr. Ott, Mr. Brydon, the fire boss, mine foreman, myself and a number of other men, assisted to examine the mine and recover the bodies after the explosion, did you not?

A. Yes, sir.

Q. What, in your opinion, caused the explosion which occurred on Monday morning, February 4th?

A. It was caused by a naked lamp coming in contact with an accumulated body of explosive gas—fire damp—in my opinion.

Q. Mr. Bratt, can you give the jury an opinion as to where the initial start of the explosion occurred?

A. It occurred, in my opinion, off the third left butt entry, off Smith heading.

Q. Mr. Bratt, in your opinion, was there any other accumulation of fire damp ignited other than the one you have just mentioned?

A. Well, from the evidence that has been given here, and from the best information I have got, I believe it was a continuous explosion from the third butt up there to the second butt off the Smith heading. I believe the gas had accumulated there until it was connected. In my judgment there was a much larger accumulation in the second, from all the evidence, than there was in the third butt, from the fact that gas is so much lighter than air that it seeks the highest point, and the second butt being so much higher than the third butt it would naturally collect there.

Q. Mr. Bratt, you in company with myself and two or three men advanced to the point on the third butt heading near the cross-cut through the pillar which connects it with the air course parallel to the same, at the same time that we were making the examination and recovering the bodies of the men who were killed in the explosion. Did you hear a feeder of gas generating gas in that section of the mine at the time we were up there?

A. Yes, I heard it. We were up there twice: you and I went up there first by ourselves, if I remember right, and we heard that feeder.

Q. You speak in your certificate to the management that there is a small quantity of marsh gas generated in their mine. Do you consider this feeder which you found on that day to be an unusually large one, and did you ever in making your official examination discover a feeder of anything near the magnitude that this feeder is?

A. I don't remember of making an official examination of that mine but once. That states that at a number of points I discovered small feeders of fire damp, but I have never discovered one as large as that one before.

Q. Did you ever discover a feeder of gas that compared in any way in magnitude to this one?

A. I never have.

Q. Should you have discovered that feeder we have been mentioning, would your report have read "marsh gas discovered in large and dangerous quantities"?

A. In all probability it would.

Q. From what you saw on the inside in making the recovery of the bodies, and the official examination of the mine, do you think it possible that a fire boss with an ordinary safety lamp could have advanced to the face of the third left—which you have mentioned as the point where the explosion occurred—and made a thorough test and found a small quantity of marsh gas at the top and have brushed it out with his mine cap within thirty minutes of the time that the explosion occurred?

A. I don't believe the fire boss examined the place.

Q. Well, Mr. Bratt, you and myself and Mr. Stewart, the fire boss, advanced to the point we have before mentioned, and what did we discover there at the time when Mr. Stewart was with us?

A. Why, we ran into gas; we discovered gas—Mr. Stewart did; he was testing; I saw it in his lamp.

Q. Well, do you think that Mr. Stewart has sufficient knowledge of explosive gas to discover it by the use of the ordinary safety lamp?

A. I think he has.

Q. You will state to the jury whether Mr. Stewart did discover any gas before reporting the same to yourself and myself?

A. Yes.

Q. Do you think if Mr. Stewart has had the lawful experience in mines generating fire damp, and was faithful and truthful, that he would be qualified as fire boss under our law?

A. I believe I would not be afraid to go with Mr. Stewart in a body of gas; I think he has had experience enough and knows enough about gas to test it and to tell when he is going into danger.

Q. Mr. Bratt, you are acquainted in an official way with the mine foreman, Mr. Riggleman?

A. The first time I ever met Mr. Riggleman was on the 18th day of December, 1906, when I first came here.



Q. From what you have noticed of his deportment would you consider him a competent mine foreman?

A. From what little I know about him I believe he is; that is, if he does his duty.

Q. Mr. Bratt, is the law being complied with at this plant in regard to the second opening?

A. The openings here meet the requirements of the law; there is no question about that.

Q. You will state what time you arrived upon the scene of the disaster and what date?

A. I arrived at Thomas Tuesday night, on the train, between 9 and 10 o'clock, but I was not in the mine until Wednesday morning. I understood at the depot that they were not trying to locate any of the bodies—that they were all tired and were going to take a rest and begin again in the morning—and Wednesday morning I went in the mine.

Q. Mr. Bratt, as you are well aware, there are different elements that will cause an explosion. Did you find any indication, in making your official examination, of any other element than the fire damp explosions, typical?

A. No, sir.

Q. Mr. Bratt, you think then that it could not be possible that a charge of dynamite blasted in room No. 1 off the third left entry off Smith, caused the explosion and the resulting loss of life and property?

A. No, no; but some of the officials of the mine claim they could smell dynamite after the explosion. It is barely possible there was dynamite in the mine and that the force of the explosion set it off.

L. W. ARNOLD, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of L. W. Arnold.

Examination by State's Attorney Smith:

Q. Mr. Arnold, by whom are you employed?

A. By the Davis Coal & Coke Company.

Q. What position have you with the Davis Coal & Coke Company?

A. I build and repair mine cars.

Q. What are your duties, Mr. Arnold?

A. Building mine cars and repairing and helping in the blacksmith shop.

Q. Have you anything to do with the oiling of the fan and keeping it in motion?

A. I did after Mr. Rexroad either quit or was discharged, I don't know which. Mr. Rexroad came to me and told me that he would like me to look after the fan, and keep after it the best I could. I told him I thought I had nearly enough to do without looking after the fan. He told me that he had nobody else to do it just at that time and wanted me to look after it. I told him I would do the best I could toward keeping it going through the week time.

Q. Do you look after the fan during the week time?

A. Yes, sir.

Q. Is that still part of your duty?

A. It had been up to the time that the explosion occurred; I have not been at the fan since.

Q. What time do you go to work?

A. I go to work at 7 o'clock; I am most always on duty at 7 o'clock.

Q. Who runs the fan at night?

A. Who ever was on duty at that time was supposed to look after it. The pumper was supposed to run the fan at night.

Q. Who looks after the running of the fan on Sundays?

A. The man who runs the pump.

Q. How do you know that, Mr. Arnold?

A. I don't know who it was told me—Mr. Riggleman or Mr. Rexroad.

Q. You don't have anything to do with it on Sundays?

A. No, sir.

- Q. And never have had?
- A. No, sir.
- Q. Did you help to start the fan after the explosion?
- A. No, sir.
- Q. Was the fan running at the time of the explosion?
- A. I do not know that; Mr. Riggleman told me that he started the fan that morning; I was not at my work yet.
- Q. Did you come to work before the explosion occurred?
- A. No, I was only just right across the bridge, coming to the works, when the night man who attends to the compressors there met me and told me that the mine had exploded.
- Q. Did Mr. Riggleman tell you that he started the fan before the explosion, or just simply say to you that after the explosion he had started the fan?
- A. It was just before the explosion that he had started the fan.
- Q. Did he tell you it was before the explosion?
- A. Yes, sir; he told me that he had been to the building and that the belting of the fan was off, but I will not say whether it was before or after the explosion.
- Q. Did you see Mr. Stewart on the ground when you went over to work that morning—the fire boss, Mr. Stewart?
- A. No, sir; I don't think that I did, to the best of my knowledge.
- Q. Did you see him going to work that morning?
- A. No.
- Q. Did you assist to recover the dead bodies from the mine, Mr. Arnold?
- A. A part of them. There were times when I would be on picket.
- Q. What part of the mine have you been in since the explosion?
- A. Well, I have been down in there to the left; I don't know what you call it.
- Q. Have you ever had any experience in mine explosions, Mr. Arnold?
- A. No, sir.
- Q. Do you know whether or not the fan was running on Sunday and Sunday night before the explosion?
- A. No, sir, I do not; I only know what Mr. Riggleman told me.
- Q. What did he tell you?
- A. Mr. Riggleman and the engineer told me that the engineer pulled the switch out of the fan something like 2 o'clock on Sunday, and that it was not running at that time, until such time as Mr. Riggleman started it, so far as I know.
- Q. Was the fan running all right on Saturday—the last day you worked there before the explosion?
- A. Yes, sir; the fan was running in good shape so far as I can say.

### VERDICT OF JURY.

We, the jury, find from the evidence taken before us that on the 4th day of February, 1907, an explosion occurred in Mine No. 25 of The Davis Coal & Coke Company located at Thomas, Tucker County, W. Va., whereby the following named persons came to their death:

Tom Polowicz,	Paul Kerock,
Frank Polowicz,	Joe Beziac,
Felix Julian,	Frank Shavitch,
Chas. Panepinto,	Frank (John) Beziac,
Oscar Allen,	Adam Bermuda,
Vinsent (Jas.) Bottice,	Joseph Arcari,
D. R. Jones,	Tony Scarponi,
John Sabowsky,	John Scarponi,
Constantine Karolis,	Sullivan Liberatori,
Patsy Danjelas,	Ralph Dandrea,
Frank Ferrin,	Harry Lastropo,
Ernest Bennemento,	John Serpone,
Jack Stucine,	

And we, the jury, upon the evidence before us find the deceased came to their death by a gas explosion, which gas accumulated through the ventilating machinery not being in motion, and the following parties are responsible for the same:

Arthur Stewart, as fire boss, to the extent as that on entering the mine on the morning of February 4th, 1907, he failed to see that the ventilating machinery was in motion; that he failed to make a thorough and complete examination of the mine to discover the gas which we believe must at that time have accumulated, and report the mine as unsafe before any miners were allowed to enter.

Mr. Riggleman, as mine boss, to the extent that he failed to properly instruct the men under him who had charge of the running of the ventilating machinery, and in seeing that men were on duty in their respective places.

The Davis Coal & Coke Company to the extent that they allowed incompetent men to occupy the responsible position of running the ventilating machinery.

### RESUMPTION OF ITINERARY.

At the conclusion of the taking of the testimony at Thomas, on October 5th, the Committee returned to Elkins and remained over night.

At 7 o'clock on the morning of the 10th they left Elkins and arrived at the Century Mine, in Barbour county, operated by the Century Coal Company, at 8:45 a. m., remaining there two hours. An inspection of the tippie, power house and fan was made by the Committee and the following party descended the shaft: Messrs. Duty, Henry, Harris, Marshall, Paul and Superintendent Strothers. The overcast was examined; also, the brick stoppings and air lock. As far as inspected this mine was in good condition.

After leaving the Century Mine, the party went to Philippi, and from there to Fairmont, arriving at the latter point at 11 o'clock p. m.

On the morning of the 11th a visit was made to the offices of the Fairmont Coal Company. A view was had of the maps of the various mines of the company and an examination made of the fan pressure gauge records. At this point the party was joined by Mine Inspector R. S. LaRue. At 2 o'clock p. m. the Committee visited and entered Monongah No. 8 mine at Monongah. They observed the concrete stoppings and overcasts and the separate traveling way. While in the mine they went to a miner's room where two men were at work. The Committee was favorably impressed with the general conditions of this mine and considered it one of the most up to date mines they had yet visited.

At 3:30 p. m. the party arrived at the Gypsy plant and took a list of prices at the store of the Fairmont Coal Company, as follows:

### LIST OF PRICES OF SUNDRY STAPLE ARTICLES AT THE GYPSY STORE.

Arbuckle's coffee .....	17
Dutch Java .....	20

Flour $\frac{1}{8}$ 's .....	75 and 80
Best breakfast bacon .....	17
Ham .....	16
Smoked sides .....	14
Salt meats .....	14
Potatoes .....	1.00
Oatmeal .....	10 and 12½
Force .....	15
Grape Nuts .....	15
Shredded Wheat Biscuit .....	15
Corn Flakes .....	10
Sardines—domestic, 5, imported .....	10
Mustard $\frac{3}{4}$ sardines .....	10
Standard tomatoes, two for .....	25
Corn, three for 25; 10c. straight and .....	12½
Canned Apples .....	10
Standard 3 lb. canned peaches, 10, 15 and .....	25
Baked beans, 1 lb. standard can 5; 3 lb. ditto .....	10
Red Kidney Beans, 2 lbs. ....	10
Van Camp's Pork and Beans, 2 lb. cans.....	15
Salmon .....	15
Condensed milk, 12½, 15 and .....	20
Cove oysters .....	10
Asparagus .....	30
Navy beans .....	5
Lima beans .....	8½
Red Kidneys .....	8½
Tea, per lb. ....	60
Soaps, six for .....	25
Carbon oil .....	15
Powder flasks, 5 lb. ....	15
Oil flasks .....	10
Squib boxes .....	5

Note: This store does not sell cigarettes, pistols, revolvers or cartridges.

Leaving Gypsy, the Committee returned to Fairmont for the night. Left Fairmont at 9 o'clock a. m., October 12th, and at 11:30 a. m., all members of the party, except Senator Kidd, entered the Pinnickinnick Mine of the Clarksburg Fuel Company, at Clarksburg, and saw an electric chain machine undercutting coal, an electric auger drilling a hole in the coal, and a shot of powder fired in the face of a room.

A new manway had recently been provided at this mine. The general conditions of the Pinnickinnick plant were good.

On the evening of October 12th the Committee met at the Waldo Hotel in the city of Clarksburg, all the members but Mr. Strickling being present, together with the Chief Mine Inspector, the Secretary and Sergeant-at-Arms.

The question of visiting mines on the Norfolk & Western Railroad

was fully discussed and an itinerary was agreed upon commencing the 21st of October.

On motion of Senator Kidd a committee consisting of the chairman and Messrs. Duty, Mitchell and the Secretary was appointed to formulate a series of questions for submission to mine superintendents and others, asking for information in regard to the ventilation and operation of mines, etc., which committee was instructed to report at the next meeting.

On further motion of the same gentleman, the Secretary was authorized and directed to invite Hon. John Nugent to accompany the Committee, as an expert, on the itinerary to the Norfolk & Western Railroad.

On further motion of the same gentleman the Chief Mine Inspector, J. W. Paul, was invited to accompany the Committee on that trip, with any assistant that he may select.

On the further motion of the same gentleman the Secretary was authorized and directed to notify Senator Adam Littlepage that the Mine Inspecting Committee will meet at Kenova on the evening of the 21st of October, and make a tour of inspection of the mines along the Norfolk & Western Railroad, and if the United Mine Workers desire to have a representative from this State with the Committee, the Committee will be pleased to have him accompany them, or to hear any suggestions they may have to make.

It was ordered that the Secretary be authorized to notify the Charleston, Bluefield and Huntington papers of the itinerary adopted by the committee.

On motion of Mr. Kidd the Committee then adjourned to meet on the 21st day of October at the Frederick Hotel, in the city of Huntington, and the Secretary was directed to notify Delegate Strickling of the time and place fixed for the meeting.



# REPORT OF ITINERARY

ALONG THE LINE OF THE

NORFOLK AND WESTERN RAILROAD,

AND

Visits to Mines in McDowell and Mercer Counties.

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Huntington, West Va.,  
October 21st, 1907.

Pursuant to adjournment the Committee met at the Frederick Hotel, in the city of Huntington, on the afternoon of this day and there were present: Messrs. Gartlan (Chairman), Duty and Mitchell, members of the Committee, and the Secretary and Sergeant-at-Arms.

Absent: Messrs. Kidd and Strickling.

In the evening Attorney General Clarke W. May, Hon. A. R. Stallings, Chief Mine Inspector J. W. Paul and District Mine Inspector Earl Henry joined the Committee.

The sub-committee appointed at the Clarksburg meeting to draft a series of interrogatories for submission to mine superintendents, and others, respecting the operation and ventilation of mines, etc., reported the following list of questions which was received and approved:

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## INTERROGATORIES.

Name .....

Occupation .....

Number of mines under your charge .....

To determine the best plan of a mine for its proper ventilation:

Q. 1. What is essential for conducting the air in sufficient quantity throughout the mine

Q. 2. How many air-ways should be provided for the intake and return current and in what manner are the number of such air-ways governed by the extent of territory to be developed?

Q. 3. Is good mine ventilation dependent upon a high velocity of the current or on a large volume of air under a medium velocity?

Q. 4. What should be the minimum and the maximum velocity of current of air in a mine which liberates explosive gas?

Q. 5. What should be the minimum velocity of the air at the working face of an entry or room?

Q. 6. Do you consider that the double entry system gives sufficient room for the proper ventilation of an unbroken boundary of a 1000-acre tract of coal?

Q. 7. What ratio should exist between the acres to be developed and the sectional area of the air courses in a mine free from explosive gas?

Q. 8. Is it advisable to use masonry or concrete stoppings in cross-cuts in room headings?

Q. 9. Which is the better method—to use a force or exhaust fan in the ventilation of a mine?

Q. 10. Note any deficiencies in our State mine law providing for the proper conduct of air through the mines?

Q. 11. What is the source of the greatest number of fatalities in the mines under your charge?

Q. 12. How many mines under your charge liberate explosive gas?

Q. 13. Do you have all your fans equipped with recording pressure gauges, and what is the advantage of having such recording gauges?

Q. 14. What is your practice in the removal of or prevention of dust within the mines?

Q. 15. To what extent do you permit the use of brattice cloth in the ventilation of any of your mines?

Q. 16. In a gaseous mine to what extent should the use of brattice cloth be permitted?

Q. 17. Do you consider trap doors essential to the proper ventilation of a mine?

Q. 18. What do you think of the advisability of dispensing with all trap doors, other than those operated automatically?

Q. 19. What are the advantages, if any, of having grating doors or gates at the various openings in which men enter, to be securely locked by the fire-boss while he is performing his duties of examining the mine, to prevent other employees from entering the mine before he makes his report on the outside?

Q. 20. Do you experience any trouble in having the mine employees conduct their work in the manner directed by you, through your officials?

Q. 21. What is your practice in the placing of an inexperienced miner to work within the mine, with a view of guarding his safety?

Q. 22. How do you establish among the non-English speaking employees, as well as native employees, a proper observance of your rules and regulations, and in what way are the employees disciplined?

Q. 23. What precaution should be provided within a mine where high tension electric wires are in service, with the view of minimizing accidents?

Q. 24. Are the mine foremen given full authority to discharge a mine employee for infraction of the rules governing the mine, or for other just cause?

Q. 25. Are the mine employees encouraged to lodge complaint when



dangerous conditions arise, and which may not be given proper attention by the foreman in charge?

Q. 26. Have you inaugurated any systematic plan for familiarizing your foreman or employes with the requirements of the mine law, and what, if any, is that plan?

Q. 27. With the view of securing the safety of a miner against falls of the roof, how often should he be visited in his working place by one competent to judge of the probability of danger?

Q. 28. In your experience do you find that old, practical miners become indifferent to the necessity of setting timber, and require to be frequently cautioned against their neglect?

Q. 29. State whether or not you are of the opinion that the mine explosions in West Virginia are due to negligence or want of care?

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At 10:45 p. m., October 21st, the party took the trolley line to Kenova where they boarded a private car of the Norfolk & Western road that had been placed at their service: which car was attached to train No. 4 leaving Kenova at 2:30 the following morning. At Bluestone Junction Mr. W. D. Ord joined the party. Arrived at Bluefield at 10:20 a. m. and spent several hours in and about the city. Left Bluefield at 3:15 p. m. on train No. 1, and arrived at Bramwell at 5:15. In the evening the committee assembled in the coal office in the Masonic building and discussed the list of questions, appearing heretofore in this record, with a number of coal operators and mine men until 10:30. During this discussion Senator Kidd appeared. At Bramwell the Committee were met by District Mine Inspectors D. R. Phillips and William Warner.

Left Bramwell October 23rd at 5:45 a. m. and arrived at Switchback at 7 a. m. At 9 o'clock visited the Delta mine operated by the Pocahontas Consolidated Collieries Company, incorporated. A party consisting of Messrs. Gartlan, Kidd, Duty, May, Stallings, Marshall, Henry, Ord, Phillips and Paul entered the mine and went to the face of a room on the fifth right entry, returning at 9:45 and viewing the power plant at Switchback. This plant was found to be in good condition.

At 12 noon the party returned to the car and ran to Carbondale, arriving at that point at 12:20 p. m. At 1:30 Messrs Duty and Paul entered the fan house along with Mr. Ed Cooper and observed the main return air current.

Left Carbondale at 2 p. m. and arrived at the mine of the Elkhorn Coal & Coke Company at 2:20. The following party were hauled into and out of this mine in a car drawn by a steam locomotive: Messrs. Gartlan, Duty, Stallings, Marshall, Henry and Paul. The effect of the gasses from the locomotive was observed and the working of an automatic door was seen. The party came out of the mine and at 3:30 went to Elkhorn station where the private car was attached to train No. 8 which left at 4:50. Arrived at Bluefield at 6 o'clock and remained over night.

Left Bluefield at 5:40 a. m. October 24th on train No. 9 and arrived at Powhatan at 7:20. The car being placed on the side tract opposite

the tippie of the Lynchburg Coal & Coke Company at Kyle, the party assembled in the office of the Powhatan Coal & Coke Company at 9 o'clock. The following persons entered the Powhatan mine for a distance of 500 feet: Messrs. Kidd, Duty, Harris, Stallings, L. E. Tierney, Henry and Paul.

Left Powhatan at 12:35 p. m. and arrived at the Pulaski mine at Eckman at 1 p. m. where the party was joined by Senators H. S. White and W. W. Whyte and Mr. J. K. F. Steel. At 2 p. m. took a motor for Pulaski Mine No. 2, the party consisting of Messrs. Gartlan, Kidd, Duty, Mitchell, Harris, Stallings, W. W. Whyte, Percival Johnson, Superintendent, J. K. F. Steel, Henry and Paul. Rode into the mine three-quarters of a mile and examined the concrete stoppings and overcast and found condition good. Returned from the mine at 3:10 p. m. and arrived at Landgraff at 3:30 where the party was joined by Dr. Epline. The following persons rode in a car, pulled by an electric motor, into the mine of the Empire Coal & Coke Company, and returned through the fan house: Messrs. Gartlan, Kidd, Duty, Mitchell, H. S. White, General May, Stallings, Henry, Warner, Dr. Hatfield, Dr. Epline, W. D. Ord and Paul. Conditions in this mine good.

Left Landgraff at 5:55 p. m. attached to train No. 1, and arrived at Gary at 7:30 remaining there over night. At 9 a. m. of the 25th left with Edward O'Toole, General Superintendent of the United States Coal & Coke Company, and the party walked to No. 6 mine and noted the electrical appliances, fan and concrete buildings at the mine. The following party rode to the face of the main entry, a distance of 4600 feet from the drift mouth, in cars propelled by an electric motor: Messrs. Gartlan, Kidd, Duty, Mitchell, Stallings, Harris, Chief Engineer Everson O'Toole, Paul and Henry.

At the face of the entry a miuer was found at work who demonstrated his method of mining coal and drilling a hole into the coal with an auger. The special features observed were frequent refuge holes, within the mine, whitewashed; concrete overcast; strong current of air; a 20-foot Capelle fan; steel tippie equipped with picking tables, crushers, bins and automatic charging scales for coke larry; electric power plant; six engines; dynamos; twenty boilers; and mechanical coke-drawers. In fact, everything needed to make a modern, up-to-date plant.

Left Gary at 2 p. m. and arrived at Welch at 3:30. The party visited Miners' Hospital No. 1 at this point and found one ward containing five burned men with only one chair in the ward.

Left Welch at 9:20 p. m. and arrived at Kenova in the early morning of October 26th, when the Committee adjourned to meet at the call of the Chairman.

# MONONGAH MINES EXPLOSION

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## IN MARION COUNTY.

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DECEMBER 6th, 1907.

Clarksburg, West Va.,  
December 16th, 1907.

An explosion causing a fearful loss of life and property having occurred at mines No. 6 and No. 8 of the Fairmont Coal Company at Monongah, Marion County, on the 6th inst., the Committee was called by the Chairman to meet at the Hotel Waldo, in Clarksburg, on the evening of this day for the purpose of visiting the scene of the disaster. The members who responded to the call were Messrs. Gartlan, (Chairman), Kidd and Mitchell. The Sergeant-at-Arms, Mr. John Marshall, was also present.

Absent: Messrs. Duty, Strickling and the Secretary.

The Committee remained at Clarksburg over night and the following morning went to mines No. 6 and No. 8 where the explosion had occurred, and made an examination of the physical conditions on the outside. Senator Kidd entered the mines with the exploring and rescuing party. In the evening the Committee went to Fairmont and remained over night returning to the mines the next morning and continued their investigations.

The Chief Mine Inspector, J. W. Paul, and the district mine inspectors who were on the ground, reported that they were not through with their inspection and were not ready to give proof as to the cause of the disaster, and that further time would be necessary in which to make their examinations.

The Committee then returned to Clarksburg where an adjournment was had to meet at the call of the Chairman.

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Clarksburg, West Va.,  
January 6th, 1908.

Pursuant to the call of the Chairman the Committee met at the Hotel Waldo, in Clarksburg, on the evening of this day and there were present

Messrs. Gartlan, (Chairman), Kidd, Strickling and Mitchell, and the Secretary.

Absent: Mr. Duty and the Sergeant-at-Arms.

On the morning of the 7th the Committee went to Fairmont to attend the hearings that were being had before Coroner E. S. Amos, and a jury, in relation to the recent explosions in mines No. 6 and No. 8 at Monongah. Mr. Duty joined the party in the afternoon. The Committee attended the hearings on the 7th, 8th and 9th, and arranged with the stenographers reporting the proceedings for a carbon copy thereof, which was ordered to be made a part of this record.

Late in the afternoon of the 9th a meeting of the Committee was held at the Hotel Manley, in Fairmont, at which meeting Messrs. Powell and Watson, representing the Fairmont Coal Company were present, and the following testimony was taken:

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### TESTIMONY TAKEN BEFORE THE COMMITTEE AT FAIRMONT.

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GEORGE HARRISON, chief inspector of mines of the State of Ohio, having been first duly sworn, testified as follows:

#### Testimony of George Harrison.

Examination by Senator Kidd:

Q. What veins of coal have you in Ohio?

A. We have from No. 1 to No. 9, with very little of No. 9 and not a great deal of No. 1, now.

Q. Do any of those numbers correspond with what is called the Pittsburg coal in West Virginia?

A. No. 8, yes, sir; No. 8 is what is known as the Pittsburg vein.

Q. Have you the Freeport coal in your State?

A. Yes, sir.

Q. Then you have some mines where the Pittsburg coal is mined?

A. We have quite a good many. Our greatest production in any county is in the Pittsburg vein—in two counties.

Q. What is the thickness of that vein in your State—the Pittsburg?

A. Well, it runs from four feet six inches up to five feet and up to probably seven feet in some places.

Q. Have you any gas to contend with in the mines in Ohio.

A. Oh, yes, we have. I think, in Ohio about eighty-five or eighty-six gaseous mines.

Q. Have you had any serious explosions in that State lately?

A. We had an explosion last March in which three men were lost.

Q. How many men have been lost by explosions in your State in the last two years?

A. Four men. I think. One was a fire boss or a mine boss who went in the mine on a day it was not in operation and walked directly with an open light to the face of the entries that were generating gas. The consequence was there was an explosion and he was killed.

Q. Have you had occasion to investigate any of the mines in West Virginia other than the two under investigation now?

A. No, sir; not any.

Q. What means do you use to get rid of the accumulation of gas in your State?

- A. We use a volume of air.
- Q. Do you have the dust removed from the mine or do you use a sprinkling plant to dampen it.
- A. We have the dust sprinkled and removed. In some mines we have had as much as two hundred and fifty car loads of dust taken out.
- Q. What system do you have of watering or dampening that dust?
- A. Well, some apply water from a line of pipes and hose and others have sprinklers.
- Q. Have you a hose attached so that you can sprinkle in a room before blasting?
- A. No, sir; there is no sprinkling done in the rooms.
- Q. Well, don't you believe that would be beneficial—before one of those shots were fired—to sprinkle the dust thoroughly?
- A. Well, that greatly depends on the amount of powder that is used in blasting.
- Q. What powder do you use in Ohio?
- A. Well, where the coal is cut it does not require any very great amount of powder—probably ten to twelve inches of powder—a one inch and three-quarters or one inch and a half cartridge.
- Q. Do you use ordinary black powder?
- A. We use common black powder—Dupont powder.
- Q. Do you use electricity in your mines?
- A. Yes, sir.
- Q. I want to ask you if the use of electricity in mines enlarges the danger of explosions?
- A. Well, I would have to say in answer to that that I have never known of an explosion from electricity.
- Q. The wire is usually over head, isn't it?
- A. Yes, sir.
- Q. Now, that is where the gas would accumulate, if it is a gaseous mine?
- A. Yes, sir.
- Q. Wouldn't a spark from that wire ignite the gas?
- A. Well, I am not just certain of that; I never saw gas ignited from a spark.
- Q. Is there any way that this wire could be placed at the bottom of a mine and be as effective?
- A. No, I think the wire is most safe if it is put up high; but I believe the positive and negative wires ought to be placed, if possible, in separate headings or separate entries, and where it cannot be done, I think that the wires ought to be protected, where men are exposed to them. We had eleven men killed last year with electric shocks.
- Q. They ran against the wires in some way?
- A. Yes, sir; we have a number of mines in Ohio that use five hundred and fifty volts and we are opposed to a voltage higher than two hundred and fifty. We have the evidence that mines can be successfully operated with two hundred and fifty volts and they are successfully operated; but a few use five hundred volts in order that they may use a lighter wire.
- Q. Have you a copy of your mining laws with you—or State laws?
- A. I think possibly I gave Dr. Mitchell the last copy I had this morning.
- By Chairman Gartlan: Q. The men that were killed by electricity—were they killed by high voltage or low voltage wires?
- A. Well, last year out of eleven men killed we had nine men killed with high voltage.
- Q. In what particular way were they killed?
- A. Well, some would come in contact with a wire while standing on a rail—which is the return current—and on the general motor haulage ways.
- Q. Have you any special legislation in regard to the use of electricity in your mines?
- A. We have not a word in our laws in reference to electricity.
- Q. There is no way, or your inspectors have no way of controlling or overlooking the testing of wires to see whether they are in proper condition and properly placed?
- A. Yes, we give orders; we give some very stringent orders. The law provides that the inspector has discretionary power in giving orders but we have no specific law governing any test.

By Senator Kidd: Q. Do you have a fire boss and a pit boss, the same as we have in this State?

A. Yes, sir.

Q. Who appoints them?

A. The companies, themselves.

Q. Are they required to pass an examination of any kind?

A. No, sir; we have sometimes complaints about fire bosses not being competent and in that case we are called in to decide. One of our inspectors decided against a fire boss about two weeks ago and the company very promptly replaced him with another man.

Q. Now, going back to this explosion at Monengah, Mr. Harrison: I do not know anything about your report except as I heard it read and by casually glancing over it. Where in your opinion did that explosion occur or what was the initial point?

A. Well, now, that is very hard to say. We would rather be inclined to think that the initial explosion was at the head of the main entries in No. 8.

Q. Now, is it your opinion that that one explosion created or caused several other explosions where there had been an accumulation of dust?

A. Yes, sir; we think there must have been a series or reinforcement of explosions.

Q. Now, doesn't that account somewhat for the difference in which these forces seem to have gone?

A. Yes, sir.

Q. Now, if here is an explosion at "A" [indicating point on piece of paper], it will send its force in each direction?

A. Yes, sir; it would take the course of least resistance.

Q. An explosion starting at "A" will send a force in each direction and if here at "B" it creates an additional explosion, will not the force from that second explosion go in each direction and will not the force going beyond "B" be accelerated and enlarged by the combination of the two forces?

A. It would.

Q. Now, this force [indicating] if it meets then other forces, one, of course, meeting the other, the greater will prevail?

A. Yes, sir.

Q. So that you can find places in that mine where the dust has been driven on each side, showing that the force has gone each way?

A. Yes, sir; we found where the force came in each direction.

Q. Now, the second explosion would then send a force back in the direction in which the first explosion had sent its force, would it not?

A. Yes, sir; if it were the greater force.

Q. If it was great enough to overcome the force coming in that direction?

A. Yes, sir.

Q. And the two would combine in their onward speed, where both were going in the same direction?

A. Yes, sir.

Q. It was somewhat troublesome in these two mines, was it not, to always trace the course?

A. Oh, yes, sir; we found it in places where there seemed to have been a regular whirlwind, and the course—the ultimate course of the explosion—showed that at the place of least resistance it probably was reinforced and came back where it had been started.

Q. Is it your opinion that the force that came out of the mouth of mine No. 8 was the greater force?

A. Yes, sir.

Q. Then was that the accumulation of all the explosions from the initial point clear to the mouth of No. 8?

A. Well, I cannot say that; we could not decide that, but the evidences of the force were very strong at the inner point of connection between the two mines, going in different directions.

Q. Now let's say here is a main entry 4,000 feet running North [indicating], and at the northern point there would be an explosion. Now, would not the force

of that explosion travel down the main entry, supposing there was no other way for it to get out? It would naturally come down, wouldn't it?

A. Certainly.

Q. Now, suppose there are five other explosions created by that first explosion; that would accelerate and increase the force, would it not, coming out of the mouth of that main entry?

A. Yes, sir.

Q. And it would be greater than if there had been but one explosion, would it not?

A. Yes, sir; much greater.

Q. Have you read the mine laws of West Virginia?

A. I have read them; not a great many times but I have copies of them.

Q. Have you any suggestions to make that would safeguard the mining industry of this State, Mr. Harrison, by amendments of the law?

A. Well, I do not know as it would be prudent for us to have much to say about a neighboring state.

Q. Well, what we want is any suggestions we can get that would be beneficial.

A. I want to say this: We have been giving the question of mine laws very careful consideration and since I left Columbus a bill has been introduced in keeping with a suggestion of Governor Harris for a commission and the chief inspector of mines is named as the seventh man on that commission. Now, that being so, I do not know whether it would be very prudent for me to say much in regard to what should be done.

Q. Your commission is yet to prepare a bill for Ohio?

A. Yes, sir; and with the possibility of being placed in that position, I might be called upon to decide questions that might put me on record. You can see that point, can't you? Now, that might come to pass and it might not; but in a general way we feel that the inside of mines is not taken care of as they ought to be. There is scarcely a company we know, or a company of any note, but what provides every facility for taking care of mines and I am pleased to say they seem as if they wanted everything to bring the mines up to the requirements of the law and maintain them there.

Q. As to these two mines what would you have to say?

A. I think there seems to have been that disposition. There is another question that arises, and that is whether the intentions of the company are always carried out. We believe that there ought to be some very stringent laws and penalties to apply to those who have charge of the inside of mines. It seems to be very embarrassing for a company after providing everything necessary to take care of a mine, and their property, and their men, to have a calamity like this that has happened here. Now, we are free to say, too, that we do not believe that these calamities can happen without the elements of danger are allowed to accumulate.

Q. And by proper and rigid care you can reduce them to a minimum?

A. By proper and rigid care we do not believe they can happen.

By Chairman Gartlan: Q. Mr. Harrison, here is a list of questions that we have sent out to different superintendents of mines in this State to answer, so we could have something before us to determine what is best to do, and a few of these I will ask you to give your opinion on.

"Q. What is essential for conducting the air in sufficient quantity throughout the mine?"

A. Proper ventilating fans and proper air ways.

Q. Now, in regard to that, which in your opinion is the best—the exhaust or force fans?

A. Well, I am very partial to an exhaust fan. My friends here and I have had that question up pretty often and I am very partial to an exhaust fan.

Q. What is your reason for it?

A. Well, some people claim that there is but little difference, but I have always found that there seemed to be better results. The exhaust delivers its air; there is no friction; it simply delivers it from out in the elements; there is no friction only the atmospheric pressure to deliver it against. It does not deliver its air in the open but delivers it into a closed chamber and I have always thought better results were gotten with an exhaust fan, for that reason.

"Q. How many air-ways should be provided for the intake and return current

and in what manner are the number of such air-ways governed by the extent of territory to be developed"?

A. Well, I have always favored at least three entries. I think that three or four entries are sufficient if there is space enough in those entries—if it has area enough to contain the volume of air; two intakes and two outlets.

Q. Well, say for instance you have two intakes and two outlets: How many acres in your opinion would they be sufficient to develop?

A. Well, it depends on the shape of the territory. We have a large amount of old mines that are a great detriment in the way of ventilation. We have a large amount of old mines—I don't know whether West Virginia is troubled in that way or not—that have been pick mines and have been operated twenty or thirty years as pick mines, and in order to reach the territories beyond the frontage they have transformed them into machine mines and have put in motors for haulage purposes and haul a long distance through an old working of the mine which gives off a great deal of black damp which in some instances makes them hard to ventilate. I think a territory of probably five hundred acres might be mined out and if mined successfully that would be a large mine.

"Q. Is good mine ventilation dependent upon a high velocity of the current or on a large volume of air under a medium velocity?"

A. Well, I do not favor a high speed. We find that the best results are obtained by a fan running at a normal speed. With a sixteen, eighteen or twenty foot fan running on slow motion, by steam, at probably one hundred revolutions, we find that that gives the best satisfaction in our State.

Q. Do I understand by that that a slow motion fan would give a medium velocity?

A. Yes, sir

Q. And a high velocity would have a tendency to carry the dust along or concentrate it along the mine?

A. Yes, sir; and while it does not seem to come with very good grace from a mine inspector to object to a big volume of air, I will say that we find out that some of the people that have large fans and have three or four times as much air as is necessary—that the inside people sometimes depend too much on the volume of air at the entry.

"Q. What should be the minimum and the maximum velocity of current of air in a mine which liberates explosive gas?"

A. Well, now, I cannot say that we have given that question much study. We have such a variety of ventilating fans and speed that I would not be surprised but what the district inspectors can give you more information than I can on that. It is their daily practice to measure the ventilating current.

"Q. What should be the minimum velocity of the air at the working faces of an entry or room?"

A. Well, that depends on the number of men that are in that section of the mine. We have a gassy mine in one of our counties that we insisted on ten thousand feet a minute close to the face of every working place.

"Q. Do you consider that the double entry system gives sufficient room for the proper ventilation of an unbroken boundary of a 1000-acre tract of coal?"

A. No.

"Q. Is it advisable to use masonry or concrete stoppings in cross-cuts in room headings?"

A. Well, we advocate substantial brick or concrete stoppings. We believe that they are the most economical and the most satisfactory.

Q. What is your opinion of recording pressure gauges? Do you believe that recording pressure gauges should be required on fans?

A. We believe they ought to have recording pressure gauges.

"Q. What is your practice in the removal of or prevention of dust within the mines?"

A. To take it out. You have got to sprinkle it, but we believe that the best way is to take it out. We have exercised our authority to the fullest extent in having it taken out of the mines in Ohio.

Q. Before shooting?

A. Well, it is taken out whenever it accumulates on the haulways, and they



take it out of the face of the rooms frequently; the miners load it out.

"Q. To what extent do you permit the use of brattice cloth in the ventilation of any of your mines?"

A. Well, we do not allow brattice cloth to be used under any circumstances only in carrying air from one breakthrough to another—which is sixty feet—and where we have gas that generates in the face or headings we require brattice cloth to be carried right up to within a few feet of the face and have a volume of air playing on the faces of the working places.

"Q. Do you consider trap doors essential to the proper ventilation of a mine?"

A. Well, they are essential to assist in hauling—to keep the haulways open. Oh, yes; they are essential in the operation of a mine.

"Q. What do you think of the advisability of dispensing with all trap doors, other than those operated automatically?"

A. Well, we recommend the automatic door.

Q. Entirely?

A. We have recommended it in this way: that we believe that it is safer and believe that there is less interruption in the ventilating current. It opens and closes only a sufficient time necessary to allow a trip to pass out; and when boys or men are trapping doors, the doors are kept open much longer; so we are very much in favor of well arranged automatic doors.

"Q. What are the advantages, if any, of having grating doors or gates at the various openings in which men enter, to be securely locked by the fire boss while he is performing his duties of examining the mine, to prevent other employees from entering the mine before he makes his report on the outside?"

A. We have orders issued requiring companies to prohibit any one from entering their mines except with a guide and having permission from the company.

Q. Yes, sir; I understand; but when the men are not at work and the fire boss is examining the mine?

A. I was going to say that personally I am very much in favor of the mines being closed so that men cannot go in and out just as they like. We are a people who believe very much in liberty and we sometimes use liberty as a license. I am in favor of the strictest discipline about mines, not only to prevent men from going in but to control them while they are in.

"Q. Do you experience any trouble in having the mine employees conduct their work in the manner directed by you, through your officials?"

A. No.

"Q. What precaution should be provided within a mine where high tension electric wires are in service, with the view of minimizing accidents?"

A. Well, we are opposed to a voltage higher than two hundred and fifty. We have learned by experience that a man can be killed instantly with two hundred and fifty if the conditions surrounding are favorable.

"Q. In your experience do you find that old, practical miners become indifferent to the necessity of setting timber, and require to be frequently cautioned against their neglect?"

A. Occasionally we do, but unfortunately there are very few practical miners at this day.

Q. How do you account for that—the use of machines?

A. We account for it because the people that have been connected with the mines are getting out of them, and the foreign labor has taken the places of them. We believe it is unsatisfactory to employ foreign labor but it seems to be a necessity.

By Senator Kidd: Q. Do they ever become as efficient as our own people?

A. Some become very efficient and very careful and skillful, but in a general way they are very unskillful. They do not seem to have a conception of the dangers that surround them.

Q. Now, in a gaseous district, what would be the number of mines you would place under one inspector?

A. Well, I would say that a very gaseous mine ought to be examined at least every two months—that is, a very gaseous mine. That depends, however, on the management of the mine. We have some mine managers we can almost

trust without going to the mines, and we have others we have to go when they least expect us.

Q. Do you believe it would add to the efficiency and avoid accidents if the fire boss and the mine boss were appointed by the State and became State officials?

A. Well, I don't know; that is a question I haven't given much thought. I question whether it would or not. I think that companies that realize the conditions of dangerous mines ought to be and are, in a good many instances, anxious to have the best men; but the very best of men become careless.

Q. What do you think about at least requiring of them a certificate of efficiency from the State after an examination by a proper board?

A. Well, if people are competent to secure a certificate and secure it legally it would not do any harm; but I regret very much to say that we have men with certificates that are the very worst men we have got.

Q. How do you account for that?

A. That is not saying it with any disrespect to those that are good men, but we have that class of men.

Q. How do you account for that? Do they obtain their certificates through some improper means or favoritism or otherwise?

A. Yes, sir; I think so.

By Chairman Gartlan: Q. What is the manner of granting certificates in your State? Is there an examining board?

A. No, sir; we have no examining board. Our department when called on is not backward in saying what they think about a man's ability.

Q. Do you think that the adoption of safety explosives in dry or gaseous mines would have a tendency to minimize the danger, especially in mines where they have unskilled labor and impractical miners such as you say the mines throughout the country now largely have?

A. Well, it might be something of a safeguard, but I would prefer and recommend that skilled men be employed to drill the holes. No, we found in both of these mines, and we find in some of our own mines that holes are unskillfully drilled and they cannot possibly be charged and fired without great danger.

Q. Do you mean skilled men to drill the holes and skilled men to do the shooting? Of course that follows. If you had skilled shooters they would not shoot a hole that was improperly drilled?

A. Well, men may shoot the wrong holes; but if they were skillfully drilled there would not be any fear of blown-out shots without there was an overcharge.

Q. Don't you run that danger of overcharge shooting by having so many men that don't know anything about the strength of powder?

A. Yes, sir; you do.

By Mr. Powell: Q. Do you think it would minimize the probability of explosions in a mine to require the employment of men to fire the shots and also to charge the holes?

A. Well, I have never advocated shot firers, only if the coal could not be cut that shot firers might be employed; but they ought to have only unlimited jurisdiction in regard to firing holes that are not properly drilled and they ought to see the charge put in.

Q. Do you disapprove of shot firers firing shots that have been prepared by the miners?

A. I do disapprove of it; I would not accept the position and consequently would not want another man to accept it.

Q. Well, wouldn't there be an element of safety in the use of shot firers who would charge and fire the shots in case of an improperly placed shot or an excessive quantity of explosive being used, in the event the shot would cause an explosion?

A. Oh, yes, sir; I think there would.

Q. Is it considered good practice to have shot firers to fire the shots in a mine while the men are working in the mines?

A. Well, that would be my way. I have taken the position that where there

are shot firers that the shot firing ought to be done during the day while the men were in the place. That is, where coal is cut there ought to be a sufficient volume of air to carry away the smoke, and the man who prepared the hole or drilled the hole would be there to charge it in the presence of the man that fires the shot.

Q. Do you discourage the practice of lighting more than one hole at one time in a working place?

A. Yes, sir.

Q. In a mine where the mining is done by mining machines is it desirable to require that a certain time should elapse after the place is undercut before permitting the shot to be fired?

A. I do not think that it is, without there has been a previous accumulation of dust. I do not believe that there would be fear if the hole was properly drilled and charged and the shot fired immediately after what is called the bug dust is loaded up.

Q. Now, Mr. Harrison, isn't there a considerable element of danger in firing a shot just after a cut has been made, especially when the hole may be drilled and fired by an impractical miner?

A. By an impractical miner? Yes, sir; there is danger. I do not believe that an explosion of dust will occur—that is, a general explosion—from a blown out shot without it comes in contact with combustible matter that will feed it. I have seen a blown out shot that will cause an elongation of the flame and continue for a considerable distance, but I do not think it would result in a general explosion without there is gas or some combustible to sustain it. There may be local exceptions, however.

Q. What do you think of the desirability of employing shot inspectors—men to examine a working place just previous to its being shot down—with a view of passing upon the safety conditions of the shot?

A. Well, I would favor that rather than shot firers to fire the shots that men had charged previous to a man going around and inspecting the hole and seeing it charged.

Q. Should fine slack coal be permitted for tamping purposes in shots?

A. No, I am opposed to it and I think our department is opposed to the use of fine slack.

By Mr. Watson: Q. Don't you think there ought to be a law against the use of fine slack in tamping?

A. I think there ought to be, and I think there ought to be a penalty for the man who violates the law.

By Senator Kidd: Q. What would you tamp it with—clay?

A. I would tamp it with clay, fire clay or soap stone or something that was soft. I would wet the tamping; the tamping ought to be dampened.

By Mr. Powell: Q. Have you given thought to the idea of requiring all shots to be fired in mines by electricity when the men were out of a mine?

A. No, I cannot say that I have given much thought to that. Of course the question has been raised sometimes in our State but I think that would interfere greatly with the operation of the mine—unnecessarily interfere. If it was necessary to protect life in doing so I would have no objection in doing it, but I think it would unnecessarily interfere.

Q. Do you think that mine operators and miners have failed to fully appreciate some of the dangers that we have in coal mines?

A. Well, I think that the race of competition, in order to make money, and the carelessness of miners have contributed to that end—that they seem to have become as it were case hardened. Miners are very careless in some instances.

Q. Do you think under the present conditions of mining in the United States that we can hope to ever have American miners to dominate in our mines?

A. No, sir; I do not.

Q. Is it your judgment that the states have to deal with a class of impractical men and that it is necessary that protection be placed around them, ignoring any knowledge that they may have of mines?

A. I believe that there ought to be a classification of work. We have even

taken that position in our reports—that the time has come when it is impossible to have skilled miners; that the demand for coal and the growth of the industry requires labor, but foreign labor—unskilled labor—ought not to be put in the mines without some protection—ample protection—and that there ought to be a classification of work, and let the skilled men do the most dangerous work. A great deal of the labor that is put in—our State even—is men that are not qualified; they are not skilled or qualified to do any work but the very commonest of labor—shovel coal or something like that.

Q. Does the State of Ohio have a large percentage of foreign mine labor

A. Yes, sir; we have quite a large percentage of it, now, and the young men or boys are driven out of the mines, and probably rightfully, by the limitation of age. They do not grow up as miners. They have to go to school until they are young men—sixteen is the age in our State—and they must be fifteen before they can go in the mines under any circumstances, except during school vacation, and the tendency of old English-speaking people is to get out of the mines. The boys of the miners are sent to some other kind of work and the consequence is that the unskilled labor increases all the time.

Q. By having a restriction of age limit for boys to work in the mines, they obtain an education that fits them for other vocations?

A. Yes, sir.

Q. And the mine is not attractive to them?

A. The mine is not attractive to them. Mining machinery does the skilled labor of the cutting of the coal. That is the most skilled part of mining—the cutting of the coal—and the machines do that now; and then the drilling and charging of holes is left to the unskilled men.

Q. And that is a very important feature in obtaining coal, is it not—the shooting of the coal?

A. Yes, sir; it is a very important feature.

Q. Your State produces in the neighborhood of sixty to sixty-five per cent machine coal, does it not?

A. I think possibly our machine coal during the past year would be about eighty per cent. It was seventy-six the year before and it was probably more than eighty the past year. I think the increase in the production last year would be considerable.

Q. When is a mine considered to be sufficiently gaseous to require the use of safety lamps?

A. Well, that is a question as to how a mine may be taken care of. I am more inclined to provide safeguards in other directions than to place a safety lamp in the hands of an unskilled person, because when you have a mine that is so gassy that it is necessary to use safety lamps, you place the life of every man in the mine in the hands of one man. Probably he knows no more about the safety lamp or the uses and purposes of it than I do about preaching the gospel; and you would increase the danger. Not only that, but I think there are more risks run when safety lamps are placed in the mine. Too much dependence is put upon them by the management in a good many instances. We haven't any safety lamps in our mines, and we had one mine that two years ago from an inspection of it showed thirty-two lighting places; you could light the gas in every place in that mine—in all those thirty-two places—and it would blaze right over their faces. We requested the company to put in ten thousand cubic feet of air a minute—to blow it on the faces of every working place—and we never had a man burned in that mine.

By Mr. Watson: Q. Do they use safety lamps there?

A. No, sir; we never use safety lamps. Only the fire boss uses a safety lamp. The mine does not generate near the gas it did at that time; but that is not so with safety lamps and they ought not to be used. I believe there are circumstances where they ought to be used but they ought to be used with great care. A man might suck the blaze through the gauze of the lamp and it might cause an explosion. I think it is better to remove the cause of danger, if you can do it, rather than to provide a lamp.

Q. In reference to the use of electricity in gassy mines: What precaution should be taken in those cases and when would you consider a mine sufficiently gassy as to advise against the use of electricity in it?

A. Well, I haven't considered that point and I haven't any knowledge on it. I haven't had any experience where gas was ever ignited by a spark, although it might be possible on a high voltage to create a fire by igniting gas in case gas had accumulated. We have had a number of mine fires from contact with electric wires but we have not had any explosions.

Q. Ordinarily, to give the mines the attention that the states should, how many mines should a district inspector have charge of?

A. Well, that depends a great deal on the size and class of the mines. We have some mines that it would take an inspector three days to inspect them, and we have others where they can make the inspection of them in three or four hours; but taking the average mine, I believe an inspector ought not to have more than about fifty mines—that is, of the class of mines we have in Ohio. It depends, of course, on the production of the mine and the extent of it.

Q. Do your State laws require your inspectors to visit mines at certain intervals, or is that left to the mining department?

A. That is left to the judgment of the inspectors. We have mines that the inspector will probably visit six or eight times in a year, and there are other mines that do not require more than two visits.

Q. Mr Harrison, you think it better practice to load the machine cuttings out before you shoot?

A. Yes, sir.

Q. If you had charge of No. 6 and No. 8 when they resume work, would you use black powder such as they have been using there or would you change it to flameless powder?

A. Well, if a flameless powder could be secured that was safe, I would not see any objection to it; but I do not see any danger in using black powder in those mines, personally, if proper precaution is used in the drilling and charging of the holes.

Q. In these particular mines would you use safety lamps or open lamps?

A. I would use open lamps.

Q. Do you think it would be better practice?

A. Yes, sir.

Q. In this district the average number of men I would say employed per mine is about one hundred and fifty: Now, don't you think that ten of these mines for an inspector to look after—in other words, fifteen hundred men—is enough for one inspector?

A. Well, that depends on the number of visits that are necessary.

Q. Well, that is fifteen hundred men: That man has to look after the safety of fifteen hundred men and the ten mines are scattered over a good many miles of territory.

A. Yes, sir: I would be perfectly well pleased if we could have a law of that kind, because it would give that much more attention, and I would even go so far as to say that I believe that men ought to have that protection, but whether the States would be willing to go to that cost or not, is a question.

Q. Don't you think that is as many men and as many working places as any one man can properly look after and really know whether the law is being complied with or not?

A. Yes, sir; I do not know but it is. There is undoubtedly too little attention given to mines in all the states, but the fact that the surface veins are being exhausted and that they are getting deeper down and finding more gas, and that sort of thing, has certainly called the attention of the State authorities to it.

By Mr. Powell: Q. Mr. Harrison, is it your judgment that in the last two or three years there has been a scarcity of all kinds of labor?

A. Yes, sir; there has been a scarcity of all kinds of labor.

Q. Would that have a tendency to minimize the business on the part of officials directly in charge of the mine and in the discipline of the men?

A. Yes, sir; I think it does very much so; in our State very much so. We have impressed upon the management of mines the necessity of supplying our department with information as to violations of the law by the men, and that we would prosecute them. "Well," they simply said, "that will drive all the men away. We can-

not get men as it is, but if you assist in prosecuting them, we would not have any left."

Q. When you see a good foreman who is stricter with his men and insists that they live up to the law, don't you think he is better supplied with men than the careless foreman.

A. I think a mine foreman that draws the line rigidly in regard to duty and discipline, and treats his men properly, is always looked up to in the end, and the men appreciate it when they come to know him.

Q. Is there any law in Ohio about shooting from the solid?

A. No; we have no law with reference to solid shooting at all but we give orders and we exercise authority in regard to the amount of powder used.

Mr. Powell: Q. Does your department give discretionary power in regard to unsatisfactory local conditions where the law does not cover it?

A. Yes, sir; and we have had to exercise that power pretty much in the last two or three years—two years particularly.

By Delegate Mitchell: Q. Isn't the position of trapper in a mine an important one as to the lives of men?

A. It is in a sense; it is an important one when you look at it from one standpoint; it is an important one in so far as it depends greatly whether the men receive the necessary amount of air and the neglecting of a door may cause an accumulation of gas.

Q. Wouldn't it be well under those circumstances to prevent the employment of boys for that purpose?

A. Well, we have recommended automatic doors in preference to the old fashioned doors, but I do not know whether it would be necessary to compel the employment of a man where a boy is sufficient to do the work. Some boys are very diligent but there are times when they are given too much work to do. They will probably have two or three doors in the near vicinity where they are located and will have to attend to two or three doors; but we regulate that. Our inspectors when they go through the mines and notice these things regulate the work of a boy.

Q. Isn't it your opinion that boys are generally more careless than men?

A. Oh, yes; boys are boys and they are not to be depended on so much as steady men.

At the conclusion of the taking of the foregoing testimony the Committee adjourned to meet in the Senate Finance Committee room at Charleston, on Thursday, January 23rd, 1908.

# TRANSCRIPT OF TESTIMONY

TAKEN AT AN

Inquisition Held at Fairmont, Marion County, W. Va.

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BEGINNING JANUARY 6th, AND CONCLUDING JANUARY 15th.  
A. D., 1908.

Before E. S. Amos, Coroner of Said County.

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UPON A VIEW OF THE BODIES OF A. H. MORRIS, CHARLIE McCANE,  
JOHN M. McGRAW,  
And Other Bodies Then Lying Dead.

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Present: E. S. Amos, Coroner, Marion County, West Virginia.

Scott C. Lowe, Prosecuting Attorney.

James W. Paul, Chief Department of Mines, of West Virginia.

George W. Alexander, Charles Powell, and Harry Shaw, on behalf of  
Fairmont Coal Company.

Jurors: W. E. Cordray, G. H. Richardson, A. S. Prichard, Festus  
Downs, J. M. Jacobs, W. S. Hamilton.

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State of West Virginia,  
Marion County, to-wit:

Proceedings had by E. S. Amos, Coroner of Marion County, West Virginia, and a jury, on the 7th day of December, 1907, at Monongah, Marion County, West Virginia:

The jury was empaneled and sworn according to law and after viewing the bodies of those persons then lying dead, was adjourned until Monday, December 9th, at 2 o'clock, P. M., when the jury again viewed the bodies then lying dead and was adjourned until Tuesday, December 10th, when the jury again viewed the bodies of those lying dead, at which time the jury was adjourned to meet on January 6, 1908, at 9 o'clock A. M., at the Court House of Marion County, West Virginia, to hear the evidence of witnesses.

E. S. Amos,  
*Coroner of Marion County, West Virginia.*

Fairmont, W. Va., January 6, 1908.

The Coroner and his jury this day reconvened pursuant to the foregoing adjournment, at the Court House of Marion County, West Virginia, to hear the evidence of witnesses.

Thereupon Nellie Bly Clemmer and E. C. Frame were sworn to take in shorthand and transcribe all the evidence of witnesses.

Thereupon came GEORGE S. GIBBONS, a witness of lawful age, who being first duly sworn testified as follows:

### Testimony of George S. Gibbons.

Examination by Prosecuting Attorney Lowe:

Q. You live at Monongah?

A. Yes, sir.

Q. How long have you lived there?

A. Three years.

Q. What is your position?

A. Pay roll clerk.

Q. For whom?

A. The Fairmont Coal Company.

Q. Were you there on the 6th of December, 1907?

A. Yes, sir.

Q. When the explosion occurred?

A. Yes, sir.

Q. Did you assist the coroner in making up a record at the morgue of those who met their death in that explosion?

A. Yes, sir.

Q. Who assisted you?

A. Mr. Rabson and Mr. Probst.

Q. I will ask you what plan was followed in regard to making up the record when the bodies were brought from the mines to the morgue. What was done by you and those making up that record?

A. As soon as the bodies were brought from the mines to the morgue I saw the bodies taken from the stretcher onto the table and then personally supervised the undressing of them so that if possible we might be able to find some means of identification of them. If anything was found to indicate who the man was, I made a record on the book as to who he was, and if no marks of identification were found, I again inspected the body after it was cleaned up to try to identify it if possible.

Q. You were acquainted with most of the men who worked there?

A. Yes, sir.

Q. When the bodies were brought to the morgue was a number—from No. 1, on up—given to each one?

A. Yes, sir.

Q. That was put down in the record book and afterwards when the name of the party was ascertained the name was written opposite the number?

A. Yes, sir.

Q. Is this record I now hand you the record that was made there by you and those assisting you?

[Here witness is handed record book.]

A. Yes, sir.

Q. Does that record contain a correct list of the persons who met their death there, so far as you know?

A. Yes, sir.



Q. Were there some of those bodies that, owing to mutilation, you were unable to identify?

A. Yes, sir.

Q. And those were marked unidentified—or what was done in regard to those on the record?

Q. The number was left blank so that if any one recognized anything found on the body the name could be filled in.

Q. After you made these identifications what was done with the bodies? Turned over to their friends?

A. The bodies were put in the morgue and their friends notified, and they would attend the funeral. If the woman was too weak to attend the funeral, the bodies were sent where they desired them, and the funeral held.

Q. Those who were not identified by you and those assisting you—was any further opportunity given for identification?

A. Yes, sir, they were put in a temporary morgue, and if the faces were in any degree presentable the bodies were exhibited until it was deemed unwise to let them remain there; and if identified the record was filled in, and if not the bodies were transferred to the cemetery.

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Next came S. J. BROBST, a witness of lawful age, who being first duly sworn, testified as follows:

### Testimony of S. J. Brobst,

Examination by Prosecuting Attorney Lowe:

Q. Did you assist the coroner and Mr. Gibbons in making up the record of the names of the parties who met their death in the explosion at Monongah?

A. Yes, sir.

Q. And does this record contain the names of those parties?

A. Yes, sir.

Q. What part of this work did you do?

A. I made the most of the records myself—put down the facts.

Q. Do you know whether ample opportunity was given for identification of the bodies?

A. We tried our very best.

Q. To get at the correct names?

A. Yes, sir.

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Next came CHARLES A. RABSON, a witness of lawful age, who being first sworn, testified as follows:

### Testimony of Charles A. Rabson.

Examination by Prosecuting Attorney Lowe:

Q. What is your occupation?

A. Clerk at the Fairmont Coal Company's office at Monongah.

Q. How long have you been there?

A. About two years.

Q. What are your duties?

A. Issuing store checks on the store there—the Fairmont Coal Company's store.

Q. Were you acquainted with the men working in the mines, No. 6 and No. 8, at Monongah.

A. Yes, sir.

Q. Did you assist the coroner and Mr. Gibbons in making up the record at the mines of the parties who met their death there?

A. Yes, I helped to identify the men.

Q. And was the result of your identification and of Mr. Gibbons and those assisting him placed in the record kept there?

A. Yes, sir.

Q. As fast as the bodies were identified their names were put on the record, together with what information you had in regard to them?

A. Yes, sir.

Q. Is this the book kept at the morgue?

[Here witness is handed the record book.]

A. Yes, sir.

Q. That record contains a complete list of those who were identified so far as you know?

A. Yes, and the articles found on them.

Q. And those who were not identified, their numbers were left blank so they might be filled in if ever identified?

A. Yes.

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### Statement by E. S. Amos.

Prosecuting Attorney Lowe: I would suggest, Mr. Amos, that you make whatever statement you can as to the making of this record, and whether it is a complete record of the parties, so far as you know.

Coroner Amos: We kept two books; I kept the most of this one myself. Some one assisted me of course. I began at first and kept it most of the time for a few days, and then I began to wear out and I got various persons to assist me. Mr. Hamilton kept it for two or three nights. We tried to get the identification and any articles found, and money. We gave the people all the chance that we could to identify their friends. Some were so mutilated that they couldn't identify them, and those were not held very long but were taken to the cemetery. So far as I know, the record is correct. There is another book which corresponds to this one that was kept by other parties so we could have check on each other.

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Next came F. W. HILL, a witness of lawful age, who being first sworn, testified as follows:

### Testimony of Dr. F. W. Hill.

Examination by Prosecuting Attorney Lowe:

Q. What is your profession?

A. Physician.

Q. Where?

A. Fairmont.

Q. Were you called to Monongah on or about the 6th of December, 1907, and for several days following, to render assistance in regard to the persons who met their death in that explosion?

A. I can't say I was called there; I volunteered my services.

Q. You were there?

A. Yes.

Q. What assistance did you render?

A. I rendered assistance to the relief corps that were overcome by the gas, and as the bodies were brought out I looked after them.

Q. As the bodies were brought out they were examined by the physicians at the opening?

A. Yes; well, I don't know about No. 6.

Q. Were they examined carefully enough to ascertain that they were dead?

A. Yes, sir.

Q. Were all of those dead brought out while you were there?

A. No, one was living.

Q. That was the foreigner that came out of the opening back of No. 8?

A. Yes, sir.

Q. With that exception, the others were dead?

A. Yes.

Q. The bodies were taken from the opening to the morgue?

A. Yes.

Q. Did you make a careful investigation of any of the bodies taken from the mines?

A. Not specially.

Q. What was the condition of any of those that you did examine?

A. They showed that they had come to their death by an explosion—by violence—probably due to the explosion, or other cause.

Q. Were all of those you noticed in the same condition, or were some of them different from others, and if so state what you noticed.

A. Some were badly mutilated and others were not.

Q. Any evidence of burns?

A. Yes, sir.

Q. What evidence?

A. Discoloration of the skin.

Q. Were there any of the bodies that failed to reveal any external marks or evidence of burns?

A. Yes, I would think so. I didn't examine that minutely. Those that were dressed, we did not undress to examine at the opening.

Q. Some bore many more marks of violence than others?

A. Yes.

By Mine Inspector Paul: Q. Did you examine any of the bodies that appeared to have died from asphyxiation?

A. Yes, sir.

Q. Were there many of that character?

A. Yes, quite a number.

Q. Were you able to determine by what gasses they were asphyxiated?

A. Not from my examination—not conclusively.

Q. Is there a test that might be easily made?

A. No.

Q. You spoke of some of the rescuing party being asphyxiated. You mean completely so?

A. No; just overcome by the gas—want of air and oxygen.

Q. And they were afterwards resuscitated?

A. Yes.

Q. In regard to the party who was taken out alive, did you examine him?

A. At the time he was taken out only sufficiently to find if he was conscious and to send him home. I went to see him on Sunday and found him improving.

Q. What was his condition when taken out?

A. His pulse was very weak and he was not rational. He was in a condition of shock.

Q. Can you state the cause of that shock?

A. I don't know that I could except in view of the fact that there had been an accident there and he was one of the employes, and it was a natural conclusion that he was suffering from the result of the explosion and was shocked.

Q. Was it due to violence or from something he inhaled?

A. There didn't seem to be any evidence of external injury or violence, so far as I examined.

By Prosecuting Attorney Lowe: Q. Did you hear his name mentioned?

A. Yes, I heard his name, but I don't recall it.

Q. Was it Peter Rosbeig?

A. I think so.

Q. That was Friday evening about what time?

A. Probably 2:30 o'clock.

By Mr. Alexander: Q. Did you hear of any other persons getting out of the mine alive?

A. I heard of several.

Q. How many?

A. I heard them say there were three or four.

Next came CRAZIC DEPETRIS, who being first sworn, testified as follows:

### Testimony of Crazic Depetris.

Examination by Prosecuting Attorney Lowe:

Q. Where do you live?

A. Monongah.

Q. How long have you lived there?

A. Two years.

Q. When did you first come there?

A. In 1889.

Q. Have you been away from there since you first came there?

A. Yes, sir.

Q. Where did you go?

A. To the old country. My wife was sick and I went back to the old country and staid four years.

Q. Then you came back to Monongah?

A. Yes, sir.

Q. When?

A. Last year—last June; two years next June.

Q. Did you ever work at the mines at Monongah?

A. Yes, sir, pick work.

Q. What mine?

A. No. 8.

Q. Were you there on the morning of December 6th, when the explosion occurred?

A. Yes, I was in the mines when the explosion came.

Q. Who was with you?

A. My brother Jan and his son Felix.

Q. Where did you go in the mines?

A. I went in the morning, at half past five. Nobody could get in before. I waited for the fire boss. I waited for him to come and open the door; then everybody goes to work. I waited for my son—the motorman; I was waiting for my boy.

Q. You waited for Felix.

A. Yes, sir.

Here Joe Berardelli was sworn in as interpreter and the following questions were asked through him:

Q. What time did you go to work that morning?

A. About half past five.

Q. What part of the mine did you work in?

A. Second right south.

Q. Did you get in before the explosion occurred?

A. Yes, sir.

Q. What room did you work in?

A. I was working in 15, but they stopped me and I went on toward left south.

Q. Did you work over there any?

A. No, sir; it was this morning that I took my tools to work there.

Q. Had you worked there before the explosion occurred?

A. Yes, I had just made a cut and shoot and loaded a car.

Q. What room?

A. Face head.

Q. Face off the South?

A. I tell the pit boss I want to work 100 feet long start the room.

Q. How long had you been working there before this explosion occurred?

A. From half past five. Made a cut and shoot and loaded a car until the explosion.

Q. How did you know an explosion occurred?

A. I saw the smoke, and all, and heard it, and the lamps went out.

Q. What did you do when the explosion came?

A. I went walking on ahead and went out about twenty yards.

Q. Where did you come out of the mines?

A. We couldn't walk any more on ahead and came back and went out of a hole about fifty or sixty yards.

Q. How many came out?

A. My brother Dan and Dan's son and Felix—four men.

Q. Were all four of the persons you name—yourself and the three others—at the same place when the explosion occurred?

A. Me and my brother was right in the room, and the others were about from here to the wall, but all in one room.

Q. Was the room you were working in when the explosion came, cumbered?

A. No, sir; just one cut to the machine.

By Mine Inspector Paul: Q. Was the ventilation good in your working place?

A. I didn't notice any change.

Q. I mean prior to the explosion?

A. I didn't notice any change, because it was the same as the other places.

By Coroner Amos: Q. Was there any fire and smoke and noise after you got out of the mines?

A. Yes, we had the smoke on ourselves when we came out. We had to walk on the ground to get out.

Q. Was there any smoke coming out after you got out?

A. Yes; if the smoke was not coming out, I would have come back and got my son out.

Q. Was the smoke hot?

A. Yes, it was hot—coming out from the fire.

Q. How long after the explosion until you got out?

A. About fifteen minutes, more or less.

By Mine Inspector Paul: Q. Did you know the fire boss working at that time in the mines?

A. Yes.

Q. Do you know his name?

A. I don't remember; he came in and left us about ten minutes before the explosion.

Q. Did you ever encounter any explosive gas in the mines in which you worked in lighting a lamp?

A. No, sir; never saw any gas in the mines.

Q. What were you doing in there the fifteen minutes after the explosion occurred and before you came out?

A. The lights went out and we tried to get out and started to walk on ahead and went on until we couldn't get any further, and we came back to where the hole was and got out.

Q. Did you see any other men while walking around there?

A. No, sir didn't see any more, only we would call each other; only us four.

Q. Did you light your lamps to come out?

A. No, sir; the lamps fell down and went out. We came out in the dark. Lamps and coats all left there.

Q. Did you try to light any matches?

A. I had the matches in my coat pocket and we couldn't find the coat and there was smoke all around and we didn't have any matches.

Q. Do you know of any other explosion or accident in that mine while you worked there?

A. No, sir; never saw no explosion before.

By a Juryman: Q. Where did you come to the surface?

A. At the side that looked toward Pennois.

By Mr. Alexander: Q. Can you show on the map where this room was you were

working in? This is first South; this is second left. Is this the hole you came out of?

[Here witness is shown map.]

A. We worked right here and I finished here. We were over here. Came out direct to the hole at the face of the first South. We were working on a room along a reservation.

Q. Was the hole close to the street car line?

A. Yes; right above the street car line.

By Mine Inspector Paul: Q. Before going in the mine that morning did you notice the fire boss's marking up on the blackboard?

A. I didn't see it.

Q. Did you see the blackboard?

A. No, sir.

By Mr. Alexander: Q. Can you read English?

A. No, sir.

Q. I will ask if the gate at the mouth of the mine was closed when you first went there that morning?

A. It was open.

Q. Was it open when you first went there?

A. Yes; if we went before half past five it was closed, but at half past five it was open.

By Mine Inspector Paul: Q. Was it open when the fire boss went there?

A. No; the fire boss went out at half past five and opened it.

Q. Did the fire boss open it?

A. I found it open. I don't know.

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Next came J. R. COOK, who being first sworn, testified as follows:

### Testimony of Dr. J. R. Cook.

Examination by Prosecuting Attorney Lowe:

Q. You are a physician and surgeon?

A. Yes, sir.

Q. Were you in attendance at mines numbers 6 and 8 on December 6th last and for several days following?

A. I was.

Q. What did you observe there in regard to the bodies that were brought out? Were there some dead bodies?

A. Yes.

Q. What did you observe in regard to them?

A. They had the appearance of being killed by an explosion.

Q. Any of them mutilated?

A. Yes, some were.

Q. How about others?

A. Most of them showed evidence of more or less mutilation.

Q. What kind of injury?

A. Such as you might expect from a violent force.

Q. Any evidence of burns?

A. Yes.

Q. What was the evidence?

A. The hair and clothing was scorched on many of them.

Q. Was the skin burnt in some places?

A. Yes.

Q. Were there some of these bodies that had little or no marks of external violence?

A. Some of them, yes. I didn't see all that were taken out. I was not in constant attendance. I speak of those I did see.

By Mine Inspector Paul: Q. Some of those you did see—were there any indications that they might have died from suffocation?

A. I didn't see any but what showed some marks of violence, like something thrust against them or something. In nearly every instance there was some injury.

Q. Did you make a careful examination of the bodies or hold a post mortem examination?

A. I did not hold any post mortem. I thought once of doing that, and then I thought it was not necessary as it was so plain as to what caused the death.

By Coroner Amos: Q. Could there have been any special benefit from holding a post mortem?

A. If I had thought so I would have made a special effort and had the post mortem. We discussed it at the time and let it go because our conclusion was that there could not be anything specially derived from an examination at that time.

By Mine Inspector Paul: Q. Did you observe any bodies that you concluded might have died from suffocation or asphyxiation?

A. Of the bodies I saw all presented some evidence of external injury.

Q. The injuries they had would have been sufficient to cause death?

A. It looked to me that way.

By Prosecuting Attorney Lowe: Q. Was there any characteristic common to all the bodies, or were they injured in different ways?

A. It appeared to me that some must have been in closer contact with the flame than others. Some didn't show marks of the burning.

By Mine Inspector Paul: Q. Did you see the first three bodies brought out?

A. Yes.

Q. What is your recollection as to the condition of these three men brought out of No. 6?

A. They were considerably bruised and there was some singeing of the hair.

Q. Were there any signs of violence, such as the skin being cut or broken?

A. Yes, they had some bruises about the face. One man had very considerable bruises along his body.

Q. Do you know if these three men were found in the cabin at the foot of No. 6?

A. These were the three.

Q. Would it be possible, in your judgment, for these men to be killed by concussion and not be bruised?

A. It is possible.

Q. Would it be possible for them to have been killed by concussion and show the marks you speak of being on them?

A. I think so.

By Prosecuting Attorney Lowe: Q. I believe you said the bodies you saw you attributed their death to violence such as you might expect to encounter in an explosion?

A. Yes, sir.

Q. As a matter of fact some of the bodies had their heads blown off. Did you see any of that kind?

A. I didn't see any of that kind.

Q. Did you see any where the bodies were severed?

A. I saw some with a portion of them severed.

Q. Some with the limbs off?

A. Yes.

A recess was then taken till 1:30 p. m.

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#### AFTERNOON SESSION.

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Next came J. J. BURRETT, who being first duly sworn, testified as follows:

**Testimony of J. J. Burrett.**

Examination by Prosecuting Attorney Lowe:

Q. You are a physician and surgeon?

A. Yes, sir.

Q. Practicing here in Fairmont?

A. Yes, sir.

Q. Were you at Monongah on the 6th of last December, immediately following the explosion which occurred there?

A. Yes, sir.

Q. When did you go?

A. I went on the morning of the explosion.

Q. Where were you the most of the time while on duty there?

A. At No. 6.

Q. Did you see any dead bodies brought out of that mine?

A. Yes, sir.

Q. Do you know how many?

A. No, sir.

Q. What did you observe about those you did see brought out—their condition?

A. I observed most of them had been subjected to violence.

Q. To what extent was this violence manifested on the bodies?

A. Generally enough to cause death.

Q. Did some of them show more evidence of violence than others?

A. Yes, sir.

Q. Did you observe any there that showed no external violence?

A. I saw, I think, two about which there seemed to be some question as to whether they had suffered external violence, but did not make a post mortem examination and could not say positively.

Q. What was the character of those marks of violence?

A. Bruises, contusions, broken bones and lacerations.

Q. Were any of the limbs torn off or mangled?

A. Yes, sir.

Q. Did you notice any evidence of burns?

A. Yes, sir.

Q. What?

A. I think a majority of the men had their hair singed and some had large burns on their bodies, faces and hands.

Q. Were you there when two or three of the first bodies were taken out of No. 6 mine that were supposed to have been found at the bottom of the slope?

A. Yes, sir.

Q. What was their condition?

A. They looked like they had been subjected to a great amount of violence. I believe I remember there was one of these bodies that didn't look so much like it had been subjected to so much violence, but the others did.

Q. You have reference to the first three that were taken out?

A. I cannot say positively that they were the first three or not, but I understood that they were among the first that were removed. I was not there all the time and there might have been a few bodies taken out that I did not see.

Q. Did that investigation of these bodies taken out of the mine lead you to the conclusion that some of them might have died from simple suffocation?

A. I think so.

Q. You do not know personally where these particular bodies were found inside of the mine?

A. I do not know where any bodies were found.

Q. Are you acquainted with the gasses that are usually found in mines after an explosion, and their effect on human bodies?

A. Partially; theoretically but not practically.

Q. Did you make any careful or critical examination of any of these bodies that showed a very small degree of external violence to try and ascertain what gasses had caused their death?



A. No, sir; it is a very difficult thing to do and cannot be done without a spectroscope.

Q. What are the gasses that are likely to produce death, as you observed it on some of these bodies?

A. Carbon monoxide. I might say that even one per cent of it in the air will produce death, because of the fact that the blood has greater affinity for carbon monoxide than for oxygen and if an individual were exposed to air containing one per cent of carbon monoxide, he would become sleepy and would probably sit down and die.

Q. Is that one of the gasses that might have produced death in this instance?

A. Yes, sir; we have the very conditions that would most likely produce it—a minimum of air and an exceptionally large amount of carbon.

Q. While you were on duty there were some of the rescue men overcome while at work?

A. I did not see any of them down, but I saw some barely able to travel.

Q. They had been brought out of the mine?

A. Yes, sir; they were led out by some of their co-workers.

Q. You treated them for the purpose of resuscitating them?

A. Yes, sir.

Next came LENARDO DOMINICO, who being first duly sworn, testified as follows:

### Testimony of Lenardo Dominico.

Examination by Prosecuting Attorney Lowe:

Q. Where do you live?

A. No. 3 hill.

Q. At Monongah?

A. Yes, sir.

Q. How long have you lived there?

A. Ever since about three or four years. I have been longer than that in West Virginia.

Q. How long have you been at Monongah?

A. About fifteen or sixteen years.

Q. Do you work in the mines?

A. Yes, sir.

Q. What mines?

A. No. 8.

Q. How long did you work there?

A. About ever since they started.

Q. About how long is that?

A. About three years.

Q. Were you at work on the 6th of last December?

A. I don't remember.

Q. Were you at work there when there was an explosion in the mine?

A. Yes, sir.

Q. About a month ago?

A. Yes, sir.

Q. What time did you go to work that morning?

A. About half past five.

Q. Was the opening of the mine closed when you got down there?

A. No, sir; it was open.

Q. Do you know who opened it?

A. No, sir.

Q. Do you know the fire boss?

A. Yes, sir; he came about nine o'clock.

Q. In the mine?

A. Yes, sir.

Q. Did you see him there at the opening when you went down?

- A. No, sir; I never seen him.
- Q. Did you see any of the bosses there at the mine?
- A. No, sir; I never seen any bosses in the morning.
- Q. Who went in there with you?
- A. I just went in there myself.
- Q. Where did you go to work?
- A. On the South, second right of first south.
- Q. Did you change over from that place?
- A. Yes, sir.
- Q. Then where did you go to work?
- A. On the third left, South.
- Q. Were you at work when the explosion occurred?
- A. Yes, sir.
- Q. What did you see when the explosion occurred?
- A. I never seen at all; I tried to get out, but couldn't see—just knocked me down.
- Q. Did you see any fire flash?
- A. I just seen the smoke, I heard lots of noise.
- Q. What kind of a noise was it?
- A. Just knocked me down.
- Q. How long did that noise last?
- A. About ten minutes. I never seen nothing. I got out through the hole on the side of the hill toward Middleton.
- Q. How far was that from where you were at work?
- A. About fifty-five yards.
- Q. Did your light go out?
- A. Couldn't find no light at all.
- Q. You had a light.
- A. Yes, sir; before; the light go out and I couldn't find my matches and had no light there.
- Q. How was the ventilation in there that morning?
- A. Comes just right—just nice.
- Q. Had you noticed any gas in there?
- A. I never been fire boss; I don't know whether there is gas there or not.
- Q. Did the fire boss come to you before the explosion?
- A. Yes.
- Q. What for?
- A. To see what places we could work—to see if any gas and if they got gas not let the men work.
- Q. Did he find any gas?
- A. Hadn't worked in that place before; that's the first day we started to work there.
- Q. Who was your fire boss? Do you know his name?
- A. I don't know his name.
- Q. Was his name Peter Kerns?
- A. I suppose; I don't know his name.
- Q. You say when the explosion occurred it knocked you down?
- A. Yes, sir; I went to get up and it knocked me down the next time—knocked me down two times.
- Q. What did you do after it knocked you down?
- A. We go up and tried to get up on the rails; there was three other fellows in there. After that we started to see if we could get out; too much smoke.
- Q. Did you try to get out at any other place than over by the street car line?
- A. No; we just watched and saw some light and got out the hole.
- Q. How many men did you see in there after the explosion occurred and while you were going out?
- A. I never seen any at all; us three men—three besides me.
- Q. Did you and these three men get out at the same place?
- A. Yes, sir.
- Q. After you got out did you come to the front of the mine?

- A. Yes.
- Q. You and these other three men?
- A. Just myself and Jim Rogers. I saw him close to mine No. 8 and I took one man out.
- Q. Who was that?
- A. I don't know what his name is—Jim Rogers go in the mine again and take out a man.
- Q. When was that?
- A. Just the same day, about 11 o'clock.
- Q. You say Jim Rogers was there?
- A. Yes, sir; he helped me.
- Q. How long did you work at mine No. 8?
- A. Ever since they first started to dig coal.
- Q. Do you know Dan Dominico?
- A. Yes, sir.
- Q. Was he one of the men that came out at the same place you did?
- A. Yes, sir.
- Q. Did he come out before or after you did?
- A. Just came the same time—all four same time.
- Q. Do you know Joe and John Sepattris?
- A. No.
- Q. Who were the other two men that came out of that place besides you and Dan?
- A. Orezio Depetris and Angelio Depetris.
- 

Next came DAN DOMINICO, who being first duly sworn, testified as follows:

### Testimony of Dan Dominico.

The following questions and answers were asked and given through Joe Berardelli, the interpreter heretofore sworn:

- Q. What is your name?
- A. Dan Dominico.
- Q. Where do you live?
- A. Monongah.
- Q. How long have you lived there?
- A. Seventeen or eighteen years.
- Q. Where did you work?
- A. No. 8.
- Q. Were you at work there when the explosion occurred?
- A. I was working with my son.
- Q. In No. 8?
- A. Yes, sir.
- Q. How long had you been working there before the explosion?
- A. One month.
- Q. Whereabouts were you working?
- A. In the mines.
- Q. Whereabouts in the mines were you working on the morning the explosion occurred?
- A. I and my son was working there in the same place.
- Q. Is Lenardo Dominico your son?
- A. Yes, sir.
- Q. What did you notice or see when the explosion occurred?
- A. I didn't see anything; the jar come and threw me down and I didn't see anything.
- Q. Did you hear the noise?
- A. No, sir.
- Q. Were you injured or hurt?

- A. Yes, sir; here on the ear and the arm; I can't raise it up.
- Q. What did you do after the explosion occurred?
- A. We started to go this way on the track and come back around toward the hole to get out.
- Q. How many were there?
- A. Four.
- Q. You all came out of the mine at the same place—through the hole?
- A. Yes, sir; all came out at the same place.
- Q. Did you come out at the same time—all of you?
- A. About fifteen minutes it took to get to the place we came out.
- Q. Was there any smoke coming out of that place?
- A. Yes, sir.
- Q. What did you do after coming out?
- A. We was going to see where the explosion come from.
- Q. Did you come over to the mine opening?
- A. Yes.
- Q. Before the explosion did you notice any gas in the mine?
- A. I didn't see anything about it.
- Q. Before the explosion was there air or ventilation going through the mine?
- A. Sometimes plenty of it and sometimes less.
- Q. Did you go in the mine that morning with these men you have mentioned?
- A. No, sir; I went in by myself.
- Q. About what time?
- A. I don't know; I didn't have any watch.
- Q. Were the other men in the mines when you went in or did they come in afterwards?
- A. I don't know.
- Q. Did you see any of the mine bosses or the fire boss there in the mine?
- A. He came that morning, but he went away right away.
- Q. Who was it that came?
- A. One man come but I don't know whether it was the fire boss or who.
- Q. Did he come after you got back to the place you were working or before that?
- A. We were there first and then he came in.
- Q. Had you ever gotten out of the hole that you came out of that morning, prior to this time?
- A. No, sir.
- Q. Do you know whether any of the other men that you have named ever got out that way or not?
- A. I don't know if the other people were there before or not.
- Q. Do you know of any explosion or accidents happening in that mine before this time?
- A. No, sir; I don't know anything about it.
- Q. Do you know what caused this explosion?
- A. No, sir.
- Q. How did you mine this coal? Did you pick it down or take it up after the machines?
- A. It was pick work.
- Q. Did you shoot any coal?
- A. We loaded one car.
- Q. How did you shoot your coal? Did you undermine it or did you shoot it without undermining it?
- A. We undermined it first.
- Q. Had you put off a shot that morning?
- A. Just one shot.
- Q. After you fired that shot did the smoke go away or did it stay there?
- A. I don't know.

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Next came ANGELO DEPETRIS, who being first duly sworn, testified as follows:

### Testimony of Angelo Depetris.

The following questions and answers were asked and given through Joe Berardelli, the interpreter heretofore sworn:

- Q. Where do you live?  
A. At Monongah.  
Q. How long have you lived there?  
A. I have been to Monongah about eighteen or nineteen years.  
Q. Where do you work?  
A. At Monongah.  
Q. What do you do?  
A. Work in the mines.  
Q. What mines?  
A. No. 8.  
Q. Were you working there on the morning of the explosion?  
A. Yes, sir.  
Q. How long had you been at work in the mine before the explosion?  
A. About a month and a half.  
Q. What time did you go in the mine that morning?  
A. About half past five.  
Q. Who went with you?  
A. My brother.  
Q. About how long had you been at work before the explosion occurred?  
A. About a month and a half.  
Q. How long that morning?  
A. Worked until the explosion.  
Q. How long before the explosion that morning had you been at work?  
A. About 10:20 or 10:25; I don't know.  
Q. What particular work were you doing right at the time the explosion occurred?  
A. We had put a shot in and I was picking the coal down from the roof.  
Q. What did you observe or see when the explosion occurred? What did it do to you?  
A. It threw me down and I didn't find my cap or nothing.  
Q. What became of your light?  
A. Lost; I couldn't find the cap or lamp.  
Q. Did you try to strike any matches?  
A. No; my brother had the match and he couldn't find it. I didn't have any matches.  
Q. What became of the smoke after you fired the shot? Did it stay around where you were or did it blow away?  
A. The smoke kind of went away; the air coming in the smoke kind of disappeared.  
Q. Where did you go after the explosion?  
A. Walked around to find a way to get outside.  
Q. Did you go out at this same opening with the other three men?  
A. Yes, sir; went one after another—one in front and another behind.  
Q. Was there any smoke coming out there when you went out?  
A. Yes, sir.  
Q. Did you see any flash of fire—any explosion that occurred?  
A. At the opening or hole the sun was shining through and the smoke and sun and light made a light that looked like fire.  
Q. When the explosion occurred did you see any fire or flash?  
A. Went like a light and go out and threw me down again; finish.  
Q. What caused the explosion, in your judgment?  
A. I don't know; no understand.

Next came E. P. KNIGHT, who being first duly sworn, testified as follows:

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**Testimony of E. P. Knight.**

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Examination by Prosecuting Attorney Lowe:

Q. Do you live at Monongah?

A. Yes, sir.

Q. Were you there the morning this explosion occurred in mines numbers 6 and 8?

A. Yes, sir.

Q. Where were you?

A. At No. 6 tippie.

Q. Are you employed there at the tippie?

A. Yes, sir.

Q. In what capacity?

A. Tippie foreman.

Q. How long had you been at work there?

A. Three years in March.

Q. Tell the jury what you saw at the time of this explosion—what the appearances were.

A. Well, I didn't see anything of it, only as it came out of the air-shaft of No. 6. That was about 10:25.

Q. What did you see coming out of No. 6 air-shaft?

A. I didn't see much of it; it looked like a dark brown smoke some way or other.

Q. Was there considerable of it?

A. Yes, sir; a good bit of it.

Q. Had you observed any noise before that?

A. Nothing that I remember of. It sounded like a dead shot some place—dynamite shot or something.

Q. What kind of a noise followed that, if any? Was there any roar or continuous noise?

A. A kind of a roar to it, as I recollect about it.

Q. For how long did that continue, if you know?

A. From five to eight minutes.

Q. You know where No. 8 mine is?

A. Yes, sir.

Q. Were you in sight of that place?

A. No, sir.

Q. You say you were up on the tippie at the time it happened?

A. I was under the tippie when it happened.

Q. Do you know anything about a loaded trip breaking loose about the time you observed this smoke?

A. Yes, sir.

Q. Where was that?

A. No. 6 tippie.

Q. How many cars?

A. About nineteen cars.

Q. They were all loaded?

A. Yes, sir; I guess so.

Q. There is a slope extending up to the tippie from No. 6 opening, is there not?

A. Yes, sir; a grade.

Q. Whereabouts were the cars on that slope?

A. About 50 feet beyond the knuckle.

Q. Did you notice where the break was? Did all the cars go back?

A. Yes, sir.

Q. When was that in relation to the time the smoke came out of there or you heard the sound?

A. I saw the trip going back and it looked like it just got inside the mine when I saw the smoke coming out of the air-shaft.

Q. Who was running the engine drawing these cars out of the mine?

A. J. E. Frye.

By Mine Inspector Paul: Q. Had the trip of cars had time to get to the bot-

tom of the slope before you saw the smoke coming from the air-shaft?

A. I do not think so.

Q. Did you observe any smoke coming out of the mouth of the slope?

A. I didn't see any; I started right up the steps.

Q. Were you in position so you could see the mouth of the slope?

A. I was when I saw the trip break loose. As I started up I saw the smoke coming out of the air-shaft.

Q. How long did the smoke continue to come out of the air-shaft?

A. I would judge from five to eight minutes.

Q. Do you know of a trip of cars having run into the mines some time prior to the date of the explosion?

A. Yes, sir.

Q. How many cars?

A. I don't remember.

Q. Were they loaded cars?

A. They might have been loaded cars; there have been loaded cars go back.

Q. About how long previous to the date of the explosion did the last trip run into the mines?

A. I don't just remember. I remember of going down and helping cleaning up.

Q. Can you approximate the time—a month or six weeks?

A. About six months, I believe, as well as I remember of it.

Q. What was the cause of the trip running into the mine—the one that ran into the mines the day prior to the explosion.

A. The hitching broke.

Q. The hitching between the cars?

A. Yes, sir.

Q. Do you know what damage it did to the bottom of the slope?

A. It didn't do any damage; only broke some of the cars and tore up a little track.

Q. Have there been other trips run into the slope to your knowledge?

A. There was one before I went there, I guess; I don't remember when it was.

Q. You only know personally of two, then?

A. Two loaded trips; yes, sir.

Q. Did your duties take you over to the mouth of the slope?

A. Yes, sir; some times I had business over there.

Q. Do you know of any trips having broken loose and having been derailed by the derailling switch?

A. Yes, sir.

Q. About when was the last trip of that kind, to your knowledge?

A. I don't remember when it was. One broke loose one evening but I don't remember how long it has been.

By Prosecuting Attorney Lowe: Q. What was the purpose of that derailling switch?

A. To keep the cars from going into the mine, I guess.

Q. Who attended to that?

A. Mr. Leonard, I guess.

Q. The fan man there?

A. Yes, sir.

Q. Who was in charge of them that morning?

A. I don't know; Mr. Leonard was at the fan.

Q. You have stated that all of these cars went back. Did you look at the place where they broke to see what caused the break?

A. I looked to see what broke and saw the pin had broken.

Q. I believe you stated that when the trip started back you were down on the ground near the tippie?

A. Yes, sir.

Q. What were you doing?

A. That's part of my duties under there, to get railroad cars under. I was talking at the 'phone when the trip broke?

Q. Did you finish your conversation at the 'phone before you started up the tippie?

A. No, sir.

Q. To whom were you talking?

A. To the shipping department at Monongah.

Q. And when you observed the trip break loose you didn't finish your conversation?

A. I finished what I wanted to talk about. I started to tell the man to tell Mr. Ruckman a trip had gone back, but before I could tell him that he had left the 'phone.

Q. To whom were you talking?

A. To Mr. Talbott.

Q. You hung up the receiver then?

A. I don't remember whether I did or not.

Q. How far was that from the steps that you went up?

A. About fifty feet.

Q. About how far up the steps had you gotten when you observed the smoke?

A. I think I was right at the bottom of the steps.

By Mr. Alexander: Q. How many cars were in that trip?

A. Nineteen.

Q. Did you examine the trip after it went back?

A. I was down there the day of the explosion and got some of the cars out that day, and got the others out since the bodies were taken out.

Q. Do you remember whether the last car was a water car?

A. No, sir; I do not.

Q. Did you find the pin?

A. Yes, sir; a part of it.

Q. Was there any defect in the pin—in the iron?

A. No, sir.

Q. You were talking to Mr. Talbott in the shipping office?

A. Yes, sir.

Q. You say he dropped the telephone?

A. We were talking about the railroad cars. We had placed our last car under the tippie and I wanted to talk to him about other cars; as I was about to tell him that the trip broke I felt the jar and I was standing about this close to the door [illustrating] and saw the rope jerk and looked out of the window and then ran out of the shanty.

Q. How soon after you saw this rope jerk till he dropped the receiver at the other end?

A. I suppose two or three seconds.

Q. Do you know why he dropped the receiver at the other end?

A. No, sir; only what he told me. He told me he had heard of the explosion at No. 8.

Q. How long was it from the time you let go of the receiver, or from the time he let go of the receiver at the Monongah end, until you walked out of this little shanty and got to the foot of the steps going up to the tippie?

A. I suppose five or six seconds.

Q. When you got there then you first noticed the smoke coming out of the air-shaft?

A. Yes, sir.

Q. About how many feet, as near as you know, is it from the top of the knuckle on the tippie to the foot of No. 6 shaft?

A. To the bottom of the mine?

Q. Yes, sir.

A. I don't know what the distance is to the slope except what I heard. I heard the mine foreman say it was nine hundred feet.

Q. How far from the top of the knuckle to the mouth of the pit?

A. Four hundred feet.

Q. How far was the rear car standing from the top of the knuckle?

A. I saw it from underneath and it looked to me about fifty feet.



- Q. The cars would have to run then about 1250 feet to the bottom of the slope?
- A. Yes, sir.
- Q. And from the time you heard Talbott drop the receiver until you first saw the smoke coming out of No. 6 air-shaft was five or six seconds?
- A. Yes, sir.
- Q. Look at this pin and state if this is a part of the pin that you picked up? [Portion of pin here handed to witness.]
- A. It looks very much like it.
- Q. What did you do with it?
- A. Put it in my pocket.
- Q. Who did you give it to?
- A. Frank Morris.
- Q. He works in Mr. Ruckman's office at Monongah?
- A. Yes, sir.
- By Coroner Amos: Q. Were any of these loaded cars dust?
- A. I don't know.
- By Mine Inspector Paul: Q. Did you cross the bridge to No. 6 after the explosion?
- A. Yes, sir.
- Q. Had you heard any noise up toward No. 8?
- A. No, sir; not that I know of.
- By Mr. Alexander: Q. How near was it when you saw the rope jerk to the time when Mr. Talbott dropped the receiver at the Monongah end—how near did they occur together?
- A. Two or three seconds. When I went to tell him about the trip I heard him drop it.
- Q. Had the trip had time to get to the bottom of the slope at the time you heard Mr. Talbott drop the telephone?
- [Not answered.]
- By Mine Inspector Paul: Q. After you left the telephone did you get out in time to see the trip running?
- A. Yes, sir; just as I got out the shanty door I saw the trip going into the mine.
- Q. About what time was it when you noticed the rope jerk?
- A. I don't just remember the time it was the rope jerked, but when I got to the mine I heard a man say it was twenty-six minutes after ten.
- By Mr. Alexander: Q. You say after you dropped the telephone and came out of the office, you saw the rear end of the trip going down the mine?
- A. Yes, sir.
- By Mine Inspector Paul: Q. Were you about the No. 6 tippie the day previous to the explosion?
- A. Yes, sir.
- Q. Were you over at the mouth of No. 6 slope during that day?
- A. No, sir; not across the river.
- Q. Did you observe whether the fan at No. 6 was running that day?
- A. Yes, sir; the fan was running.
- By Prosecuting Attorney Lowe: Q. Who was in charge of it?
- A. The day before the explosion?
- Q. Yes, sir.
- A. I do not know.
- Q. Who were the fan men they had there?
- A. Mr. Henry Lambert and Mr. Snider.
- Q. When you got to the No. 6 mine just after the trip went into the mine was the fan running then?
- A. I don't remember but I think it was.
- Q. Did you notice the fan had been running previous to the time the trip ran into the mine?
- A. Yes, sir.

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Next came LEVI MARTIN, who being first duly sworn, testified as follows:

### Testimony of Levi Martin.

Examination by Mine Inspector Paul:

- Q. Where do you live?  
A. West Monongah.  
Q. How long have you live there?  
A. About fifteen years.  
Q. What is your vocation?  
A. Laborer.  
Q. Where?  
A. No. 6 mine.  
Q. Inside the mine?  
A. No, sir.  
Q. What character of labor do you perform?  
A. Repair cars and different things.  
Q. Where were you on December 6th?  
A. At the time of the explosion?  
Q. Yes, sir.  
A. At home.  
Q. Where is that located in reference to numbers 6 and 8 mines?  
A. Where I live?  
Q. Yes, sir.  
A. Out near what is called the Willow tree; it is due west.  
Q. What was the first knowledge you had of the occurrence—of anything unusual about Nos. 6 and 8 mines?  
A. I can't really tell you; I was so excited I didn't know what was going on.  
Q. What excited you?  
A. The noise.  
Q. Then you heard a noise, did you?  
A. Yes, sir.  
Q. What was the nature of the noise?  
A. The first I heard it sounded like something rumbling—thunder or something; I can hardly tell you what.  
Q. From what direction did the noise appear to come?  
A. First it seemed to be right under where I was working. I threw my eyes and looked up to the hole by the willow trees and smoke was coming out of there and I threw my eyes around to No. 8 and it went off.  
Q. Do you know where that hole is located with reference to any of the workings of the mine?  
A. No, sir.  
Q. Do you know what time it was when you heard that noise and saw the smoke?  
A. Ten thirty.  
Q. Could you see the vicinity of the mouth of No. 8 from your home?  
A. I could see the smoke rising and that's all I could see.  
Q. Did you hear any noise down in the direction of No. 6, or see any smoke?  
A. Not until after I started over toward No. 8. I looked down there and saw the smoke, but never heard any report down there.  
Q. This hole you speak of—out of which you saw smoke emitting—does it have any connection with No. 6 or No. 8?  
A. I can't tell you; I never was in there and I don't know anything about it.  
Q. Where is your home with reference to No. 6 and No. 8 openings?  
A. Between them; off to the right.  
Q. Is it near Thoburn Post Office?  
A. Beyond.  
Q. Up the river?  
A. Up the pike; yes, sir.  
Q. When were you last on duty at No. 6 mine previous to the explosion?  
A. On the 4th, I reckon.  
Q. How long have you been working at No. 6 mine?  
A. About three years.

Q. Do you have any knowledge of an explosion of any character having occurred in No. 6 mine previous to the 6th of December last?

A. No, sir.

Q. Do you have any knowledge of the dust being inflamed by an explosion at any time a trip of cars might have run back into the mine?

A. No, sir.

By Mr. Alexander: Q. You saw this smoke coming out of the bore hole or toad hole?

A. I think that's what it is—there by the school house; a drilled hole.

Q. Do you know whether it was recently drilled?

A. Yes, sir; just a while before that.

Q. This bore hole you speak of is beyond the school house?

A. Yes, sir.

Q. Do I understand you to say that you first saw the smoke coming out of there?

A. Yes, sir; I was looking up that way at the time and threw my eyes around toward No. 8 and it went off.

Q. Did you see the smoke coming out of No. 8 when you first looked around?

A. Yes, sir.

Q. About how far is it from your house to the mouth of No. 8?

A. I suppose about half a mile, I would say.

Q. The mouth of No. 8 is over the hill so you cannot see it?

A. Yes, sir.

Next came CARL MEREDITH, who being first duly sworn, testified as follows:

### Testimony of Carl Meredith.

Examination by Prosecuting Attorney Lowe:

Q. Where do you live?

A. I live at Monongah.

Q. Were you up there on the 6th of December when the explosion occurred?

A. Yes, sir.

Q. Where were you?

A. At No. 8 tipple.

Q. Do you work there?

A. Foreman.

Q. What time did you go to work that morning?

A. I got up there about 6:30, I guess; that is about my usual time.

Q. Did you notice whether the fan was running or not?

A. No, sir, I did not.

Q. Your work is across the river from the opening of No. 8?

A. Yes, sir.

Q. What called your attention to the fact that there was an explosion? What was the first thing you noticed?

A. I was out on the loaded track and was looking toward the mouth of No. 8 and the first thing I knew I saw the timbers and everything flying in the air.

Q. Do you know what time that was?

A. Not certain, about 10:30.

Q. What followed that?

A. Black smoke.

Q. Was that coming out of the mine opening?

A. I seen it in the air right above the mine; I suppose it came out.

Q. How long did that continue?

A. I don't know; I didn't keep my eye on it very long for the air was full of timbers and I was looking up in the air to see if anything would hit me. I took my eye off of it after a second.

Q. You are not able to state how long the smoke continued to come out?

A. No, sir.

Q. Were you situated so you could see No. 6 opening?

A. I don't know; I didn't see it anyway; I don't know whether I could see it from there or not.

Q. Just before you saw the timbers flying had you heard any report or noise?

A. No, sir; I seen that before I hard any report.

Q. Was there any fire among the smoke?

A. Yes, I seen some fire.

Q. Did you have any occasion to look in the direction of No. 6?

A. No, I did not; I didn't think anything about No. 6.

Q. You didn't see any smoke coming out of there?

A. No, sir.

Q. What was the nature of the fire or flash you saw at No. 8? What did you see in respect to that?

A. It seemed to me like the smoke was afire. It seemed to me it was a short distance up in the air, may be fifty or sixty feet, may be a little bit more.

By Mr. Alexander: Q. Do you not know that on the street car line the high tension wires were broken by the explosion?

A. Yes, sir.

Q. Might not this fire you saw have come from the broken electric wires?

A. Yes, sir.

Q. You were standing on the opposite side of the river from the mouth of No. 8?

A. Yes, sir.

Q. So it might have been the fire from the street cars wires?

A. Yes, sir; it might have been.

Q. These timbers you saw coming out—did they come out before the smoke?

A. Yes, sir; the first thing I thought of was that the boiler had blown up. I saw the timbers and brick falling and it was only just an instant until I saw the smoke and knew it was the mine.

Q. The smoke followed the timbers?

A. Yes, sir.

By Prosecuting Attorney Lowe: Q. Had you any knowledge of any prior explosion or fires about No. 8?

A. No, sir.

Q. Did your duties call you about No. 6 any?

A. No, sir.

Next came HYRE STALNAKER, who being first duly sworn, testified as follows:

### Testimony of Hyre Stalnaker.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Monongah.

Q. How long have you lived there?

A. About five years.

Q. What is your occupation?

A. Carpenter, I reckon; I work at it.

Q. Do you work at one of the mines?

A. At No. 6.

Q. Were you working at No. 8 mine on the 6th of December last?

A. Yes, sir; at the carpenter shop at No. 8.

Q. Where is the carpenter shop?

A. It's across the river from the opening.

Q. Near the barn?

A. Down toward the tippie from the barn.

Q. Did you see any evidence of an explosion on that day at No. 8 mine?

A. Yes; I seen some.

Q. What was it?

A. I seen smoke.

Q. Were you looking at the mine at the time of the explosion?

A. Well, I can't say I was, in the first place. I was in the shop, not expecting

anything like that; when I came to myself I was in line with the mouth of the pit.

Q. Had you been stunned?

A. I was shocked; nearly stunned.

Q. Then the force of the explosion shocked you?

A. Yes, sir.

Q. Was there a report of the explosion on the outside?

A. Quite a bit of it—something.

Q. When you recovered yourself did you see smoke emitting from the mines?

A. Yes, sir.

Q. Did you see any flame?

A. No, sir.

Q. Did you see any flashes such as might have been caused by electric wires?

A. I did not.

Q. Where did you go immediately after that?

A. I went across the bridge to rescue who might be over there. It was a very short while.

Q. Did you hear any noise from No. 6 mine or observe any smoke from that direction?

A. No, sir.

Q. Did you find any men on the bridge?

A. One man.

Q. Who was he?

A. Joe Newton, a colored fellow.

Q. Had he been injured by the explosion?

A. I suppose he must have been.

Q. What evidence had you that he was injured?

A. I can't describe that. He had some wounds about his head and one eye was knocked out. I didn't pay much attention to it. I don't like to look at a sight like that.

Q. Do you know whether he is still living?

A. I heard he was; I don't know it to be so.

Q. How far from the mouth of the mine did you see him?

A. Something like a hundred feet.

Q. Did you find any other men?

A. Yes, sir; George Bice, I believe, is his name.

Q. What did he do there?

A. He was engineer at the fan.

Q. Where did you find him?

A. Down next to the street car line. He was lying outside of the wall.

Q. Was he imprisoned with pieces of the wall—timbers?

A. Yes, sir.

Q. Did you help to extricate him?

A. Yes, sir.

Q. Do you know if he has died since?

A. I heard he did.

Q. How long did the smoke continue to come out of the mines?

A. I can't tell about that; it did not appear to me but a very short while, but probably a minute; it might have been longer or not that long; it seemed like it disappeared quick.

Q. Had it subsided when you got to the mine?

A. There was no smoke coming out that I remember.

By Mr. Alexander: Q. You were working in the carpenter shop?

A. Yes, sir; I was in there at the time.

Q. Had any of the stones or brick or anything from the explosion injured the building in which you were working?

A. I am not sure about it. There was a piece of car axle that I suppose came from the explosion, that knocked the lower window sash out of the shop. We found it in the shop afterwards—the upper one next to the railroad. There was one sash knocked out. I did not see it come, but that was the only piece that I thought came from the mine.

Q. Did that occur before you heard any noise or shock?

A. It all occurred about the same time to me. The shock caused the iron and

everything to give in the shop and the windows to break out. Of course a person couldn't realize the difference between the times.

Q. Wasn't a part of the fan from No. 8 blown across the river onto your side?

A. Yes, sir; a piece of it on this side of the river.

Q. How long did you notice the smoke coming out of the opening?

A. It might have been a minute or it might have been longer; I can't say; it might have been less.

Next came LEE CURRY, who being first duly sworn, testified as follows:

### Testimony of Lee Curry.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Monongah.

Q. How long have you lived at Monongah?

A. Since 1900.

Q. What is your occupation?

A. Stationary engineer.

Q. What mine?

A. No. 8.

Q. Did you run a hoisting engine at No. 8?

A. Yes, sir.

Q. Were you running the engine on the 6th of December last?

A. Yes, sir.

Q. Where were you at the time of the disaster at No. 8 mine?

A. In the engine house.

Q. What was the first intimation you had that something had occurred?

A. The glass breaking out of the window in the house next to the tippie.

Q. Were you where you could see the opening of No. 8 mine?

A. No, sir.

Q. What did you do immediately after you saw the glass broken?

A. I thought something had occurred at the boiler house. I went out of the house and started around the house to go to the boiler house.

Q. What did you observe then in respect to No. 8?

A. I saw the smoke in the air over the tippie.

Q. Was the smoke coming out of the mine?

A. It was in the air.

Q. Had it floated over the house or river?

A. No, sir; it was going straight up in the air.

Q. Did you hear any disturbance in the direction of No. 6 mine?

A. No, sir; I did not hear any noise from No. 6. I saw the smoke coming out of No. 6 and going up in the air.

Q. You saw it coming out of the mine?

A. I saw it when it came out of the mouth of the mine?

Q. That was after you left the engine house?

A. Yes, sir.

Q. Did you notice any flame from the mouth of No. 8 mine?

A. No, sir; I couldn't see the mouth of No. 8 from where I was.

Q. How soon prior to the explosion had you allowed the cars to run into the mine?

A. I had just dropped the trip in the mine and stopped the empty trip still as the explosion occurred.

Q. Your engine was standing still when the explosion occurred?

A. Yes, sir.

Q. How long after you felt the jar on the building was it until you saw the smoke coming out of No. 6 mine?

A. I don't know; I suppose it was not more than five or six seconds; I had only about twenty-five or thirty feet to go.

By Mr. Alexander: Q. How soon after the jar occurred and the glass rattled

was it till you walked out so you could see the smoke coming from over the top of No. 8?

A. Just as soon as I could get out of the house. I suppose I did not have more than twenty or thirty feet to go to see the smoke.

Q. When you got out you could see the smoke in the air?

A. Yes, sir.

Q. Where did you look after looking there? Could you see the mouth of No. 6?

A. No, sir; I could see directly over the mine and in front of the mine.

Q. How close to the mouth of the mine?

A. I suppose within seventy-five feet of the pit.

Q. Could you see the Catholic church in West Monongah?

A. Yes, sir.

Q. You know where there is an opening there?

A. Yes, sir.

Q. Did you notice any smoke coming out of that opening?

A. Yes, sir.

Q. Did you notice whether the smoke came out before or after the smoke you noticed at No. 6?

A. Before.

Q. When you looked down the river you first saw the smoke coming out of the toad hole?

A. Yes, sir.

Q. And then you cast your eyes on down toward No. 6 and saw the smoke?

A. Yes, sir.

Q. Then the smoke first showed at No. 8 before it did at No. 6?

A. Yes, sir; I think it did.

Q. Did you first see the first smoke coming out of the toad hole?

A. No, sir; the smoke was coming out of there when I saw it.

Q. How far was it up in the air?

A. I don't know just how far, but it was above the house tops and above the church.

Q. But it was not at the mouth of No. 6?

A. No, sir; not while I saw it.

By Mine Inspector Paul: Q. You observed the smoke back of the church about the time you did at No. 8 mine?

A. I saw the smoke over the tippie at No. 8 first. I ran out on top of the bank facing up toward the church and No. 6 and when I got out there I saw the smoke coming out of the hole and as I looked down at No. 6 the smoke whirled up in the air.

Q. Have you ever been at the opening you speak of—the toad hole?

A. Yes, sir.

Q. Isn't that a slope timbered and used considerably for men and animals?

A. It is a slope to take the horses in at; I don't know whether it is timbered or not.

By Mr. Alexander: Q. How far is it from the engine house out on the bank you speak of?

A. I suppose from where I was standing at the engine to where I walked was probably thirty or thirty-five feet, or something like that.

By District Inspector La Rue: Q. Did you walk quickly out there?

A. Yes, sir; as quick as I could get out of the house.

Q. You think the smoke came out of No. 8 first?

A. I believe it did.

By Mr. Alexander: Q. What broke the windows in the building that you first noticed? Was it near the time of the shock or jar?

A. I suppose it was the force of the explosion.

Q. You had no way of telling what came out of the mine first—whether the timber or the smoke?

A. No, sir; I couldn't see the mouth of No. 8 mine.

Next came GEORGE E. PEDDICORD, who being first duly sworn, testified as follows:

## Testimony of George E. Peddicord.

Examination by Prosecuting Attorney Lowe:

Q. What is your occupation?

A. Outside foreman at No. 8.

Q. Were you up there on the morning the explosion occurred?

A. Not at No. 8.

Q. Where were you when that occurred?

A. I was on the approach leading to the East end of the Monongah bridge.

Q. What were you doing down there?

A. I had been down to the supply house for chain buckets, and was coming up to No. 8 on the west side of the river.

Q. What was the first indication of an explosion that you observed.

A. The earth shaking.

Q. Was there any report or noise following that?

A. No loud report—a rumbling noise.

Q. What was the nature of the noise?

A. Just a rumbling.

Q. In which direction did you first notice that?

A. Up the river toward No. 8.

Q. Following the quiver or shaking that you mentioned and that rumbling noise, what did you observe?

A. I observed the timbers and debris coming out of No. 8.

Q. Could you see the opening of No. 8?

A. I couldn't see the opening, but I knew the location.

Q. These timbers were from that opening?

A. The timbers were in the air when I first saw them.

Q. Where was that in relation to No. 8 opening?

A. Right above.

Q. Did you have any occasion to look in the direction of No. 6?

A. Yes, sir; I looked at No. 6 as soon as No. 8 went off.

Q. What did you observe down there?

A. While I was looking there the smoke came out of the air-shaft at No. 6.

Q. That was after you saw the timbers in the air from No. 8?

A. Yes, sir.

Q. How long did the smoke continue to come out of the opening?

A. I didn't look; I knew the mines had exploded and went across the river up to my home and then to No. 8 mine.

Q. Did you notice any flames or fire at either one of the openings?

A. I noticed the difference in the color of the smoke.

Q. What was that difference?

A. The smoke that came out of No. 8 was black and that which came out at No. 6 was a reddish brown.

Q. Were you in sight of the tippie at No. 6?

A. Yes, sir.

Q. Did you observe the runaway trip of cars there?

A. No, sir.

Q. You say you turned around after seeing what you did see at No. 8 and looked in the direction of No. 6 immediately?

A. Yes.

Q. And you didn't see any trip of cars at that time?

A. I did not.

Q. Either entering the mine or up on the tippie?

A. No, sir; I didn't see any.

By District Inspector La Rue: Q. What length of time do you think elapsed between the appearance of the smoke at the two places? You say you saw the smoke at No. 8 first and then at No. 6. What time elapsed between the two?

A. Not more than a second.

Q. Just as quick as you could turn. You say the smoke at No. 6 had a brown appearance and no signs of flames?

A. No flames at either that I could see.



Q. How long did the smoke continue to flow out?

A. I didn't see any flow out; what I saw was coming out of the air shaft. I was not in sight of the slope.

Q. You say one was black and the other a brown color?

A. Yes, sir.

By Mine Inspector Paul: Q. How soon did you get to No. 8 mine after you observed the smoke?

A. In about ten minutes.

Q. Was steam escaping from the boilers when you got there?

A. No, sir.

Q. How long have you acted as outside foreman at No. 8?

A. About six months.

Q. Had you ever worked in either of these mines—6 or 8?

A. No, sir.

By Prosecuting Attorney Lowe: Q. During the time you have been at No. 8 have there been any former explosions or accidents there?

A. There have been no accidents that I know of. I had nothing to do with the inside; I was an outside man.

Q. Had you been over at No. 8 that morning?

A. Yes, sir.

Q. Who was on duty that morning at No. 8 fan house?

A. Will Bice.

Q. Was he one of the men killed?

A. Yes, sir.

Q. Was the fan running there that morning?

A. Yes, sir; the fan ran all the time.

Q. Had there been work at that mine the day before?

A. No, sir.

Q. Were you over there that day?

A. Yes, sir.

Q. About what time?

A. About half past 10.

Q. Who was on duty at the fan house then?

A. Will Bice.

Q. The same man?

A. Yes, sir.

Q. Was the fan running?

A. Yes, sir.

Q. Who assisted him or worked the other shift there?

A. Alvy Yost worked the night shift.

Q. Is he living?

A. Yes, sir.

By Mine Inspector Paul: Q. Did you have charge of the stables on the outside—the stock?

A. No, sir; Mr. Dean was general foreman.

By Mr. Alexander: Q. You say the fan was running the day before?

A. Yes, sir.

Q. After this rumbling noise you say you heard you first saw the timbers in the air?

A. Yes, sir.

Q. Before you saw the smoke?

A. Yes, sir.

Q. How long from the time you heard the rumbling noise until you looked in the direction of No. 8?

A. I just looked up there when it went off.

Q. How long were you observing the smoke and timbers?

A. I knew what had happened and looked up at No. 6 to see if it had gone up and while I was looking No. 6 went off.

Q. The black smoke followed the timbers?

A. Yes, sir.

Next came WILL JENKINS, who being first duly sworn, testified as follows:

### Testimony of Will Jenkins.

Examination by Prosecuting Attorney Lowe:

Q. You live at Monongah?

A. Yes, sir.

Q. What is your occupation?

A. Blacksmith.

Q. For whom?

A. Fairmont Coal Company.

Q. Working at what mine?

A. At No. 6.

Q. How long have you worked there?

A. About seventeen months?

Q. Were you there the morning the explosion occurred?

A. Yes, sir.

Q. What time did you go to work?

A. About twenty minutes until 7.

Q. Did you have occasion to go into the mines that morning?

A. Yes, sir.

Q. For what purpose?

A. To put a shoe on a horse.

Q. Where was that?

A. Second left on East heading. And Frank Moon called me to go to fourth left to see about his horse, but he was mistaken, as his horse had no shoes off. It had no calks on the shoes and he thought it was off.

Q. Did you shoe the first horse?

A. Yes, sir.

Q. How long did you stay in there?

A. I suppose about half an hour—a little bit longer than that probably.

Q. How long had you been out when the explosion occurred?

A. Not more than fifteen or twenty minutes.

Q. While you were in there did you notice any evidence of gas?

A. No, sir.

Q. How was the ventilation?

A. Good. I made a remark to myself about my lamp nearly blowing out two or three times.

Q. The ventilation was good you say?

A. Yes, sir; it was.

Q. What did you do after coming out?

A. There was a horse in the blacksmith shop waiting to be shod. I had driven one shoe on and had reached around to take up another shoe when the explosion occurred.

Q. How close is the shop to No. 6?

A. Twenty-five or thirty feet.

Q. And down the river?

A. Yes, sir.

Q. Just before the explosion did you notice a trip of cars go back?

A. Yes, sir.

Q. When did you notice that in relation to the explosion?

A. It was not more than two or three seconds after it passed the shop until the power went off at the blacksmith shop. It was only a very short while.

Q. Do you know how far it is from the bottom of the slope to the bottom of the mine?

A. No, sir; I don't believe I do.

Q. You have gone over that distance, haven't you?

A. Yes, sir.

Q. How far could that trip of cars have gone before you noticed the evidences of the explosion?

A. It must have gotten to the bottom, for the power went off at the blacksmith shop.

Q. You say you were in the act of nailing on a shoe at the time the trip went by?

A. Yes, sir.

Q. Did you go and throw your switch out?

A. No, sir; Mr. Smith did—the man that was working with me.

Q. Did the trip in running down make any unusual noise and did you know it was a runaway trip?

A. Yes, indeed.

Q. Do you know if any force came out of the slope?

A. Yes, sir.

Q. Did it blow anything out of the slope?

A. Yes, sir; I didn't see any very large pieces. One piece of tie came down through the blacksmith shop right beside.

Q. Was any person injured on the outside?

A. Yes, sir; Mr. Shroyers.

By District Inspector LaRue: Q. How long after the power went off till the smoke came from the mouth of No. 6 slope?

A. Two or three seconds, I think, to the best of my knowledge.

Q. You think the trip had had plenty of time to have landed at the bottom?

A. Yes, sir.

Q. About the time it had had time to land there the power went off?

A. Yes, sir.

Q. How long did that smoke continue to flow out of No. 6 after you first saw it?

A. I have an idea as much as three or four minutes. Me and Mr. Smith went down along the river three or four hundred yards and climbed up on the street car track and it was still coming up.

Q. Might it not have been as much as seven or eight minutes?

A. Yes, sir; it might have been.

Q. Was the smoke of a black or brownish color?

A. Well, it was a kind of sootish color.

Q. Did you see any signs of flame?

A. No, sir; I did not notice any flame of any kind.

Q. You didn't notice any recovery—just a steady blow-out?

A. Yes, sir; just a steady blow-out.

Q. Did you notice any reaction at any time?

A. No, sir; it just blew out steady.

Q. No return?

A. No, sir; no return.

By Mine Inspector Paul: Q. How soon did you get to the mouth of the slope?

A. I was right over the mouth while it was still blowing.

Q. Could you hear any rumbling noise, as if explosions were going on?

A. No, sir; not after we heard the noise in the blacksmith shop.

By District Inspector LaRue: Q. Was it a continued rumbling, or did it seem as if explosions were going on at different places? Was it steady or jerky?

A. I can't say when it first started out. The horse had me down under him and I was doing my best to get out.

Q. You spoke of going in fourth left; that's the last place you went in?

A. Yes, sir.

Q. How was the ventilation at that point?

A. Good.

Q. You had an open light, did you?

A. Yes, sir.

Q. You think it was fully as good as at any time prior?

A. It was far better that morning. I remember of pulling the wick up out of my lamp three or four times on account of the current.

Q. Did you walk in and out?

A. No, sir; I rode in on the motor.

By Mr. Alexander: Q. How long did you say it was from the time you heard the trip go by the blacksmith shop until you heard this rumbling noise of the explosion?

A. It was not more than two or three seconds?

Q. When did the current go off in the blacksmith shop with reference to when you heard the noise?

A. About time for it to get to the bottom, likely, when the current went off. May be the man over at the dynamo pulled the switch, for all I know.

Q. When did you say the current went off with reference to when you heard the rumbling?

A. After the current went off.

Q. The current went off after you heard the noise?

A. Yes, sir.

Q. You heard the trip going in the mine and knew it was a runaway?

A. Yes, sir.

Q. And in three or four seconds you heard the rumbling noise of the explosion?

A. No, sir; the current went off first.

Q. How long after the current went off until you heard the explosion?

A. I suppose likely about the same time; may be three or four seconds; maybe a little longer than that.

Q. How do you figure that the trip had time to get to the bottom of the slope before you heard the noise of the explosion?

A. The way it was going past I thought it had.

Q. How many feet is it from the mouth of No. 6 to the foot of the slope?

A. I do not know; I would think about five hundred feet; may be more than that.

Q. In fact isn't it nine hundred feet?

A. Probably it is.

Q. Might not that explosion have occurred down there and thrown the circuit breakers out and that was what shut off the current?

A. I don't know whether the explosion shut it off or whether the dynamo man put it off.

Q. You were shoeing a horse at the time you heard the runaway trip go by?

A. Yes, sir.

Q. Did you stop shoeing?

A. No, sir; I was down. The trip going by scared it. He was still tramping around over me when the explosion occurred. I didn't see the first start of it, but felt the jar of it.

Q. The trip going in scared the horse?

A. Yes, sir.

Next came WILLIAM FINLEY, who being first duly sworn, testified as follows:

### Testimony of William Finley.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Monongah.

Q. What is your occupation?

A. Town Sergeant.

Q. Were you in Monongah on the 6th day of December last?

A. Yes, sir.

Q. At the time of the explosion of Nos. 6 and 8 mines were you where you could see either one of the mines?

A. Yes, sir; No. 8.

Q. Where were you at the time?

A. I was standing on the street by the coal company's office, at the south side of it.

Q. What did you observe at No. 8 mine?

A. I heard a report of some kind up the river like a heavy blast and I seen the smoke coming up over the bridge at No. 8.

Q. Did you notice any smoke coming out of No. 6 mine?

A. I did afterward; yes, sir.

Q. How soon after seeing the smoke at No. 8 did you see the smoke at No. 6?

A. Four or five or six seconds or something like that.

- Q. Did you see the runaway trip go into the mine?  
A. No, sir.  
Q. Did you hear it?  
A. No, sir.
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Next came PETER ROSEBEIG (called Peter Urban), who being first duly sworn, testified as follows:

### Testimony of Peter Rosebeig.

William Vokolek was here sworn as an interpreter, and the following questions and answers were asked and given through him as such:

Examination by Mine Inspector Paul:

- Q. What is your name?  
A. Peter Urban.  
Q. Where do you live?  
A. At No. 3 Monongah.  
Q. How long have you lived at Monongah?  
A. Six months.  
Q. What has been your employment?  
A. A miner.  
Q. In what mine?  
A. No. 8.  
Q. How long have you worked in No. 8 mine?  
A. About six months.  
Q. Were you in No. 8 mine on December 6th, last—the date of the explosion?  
A. Yes, sir.  
Q. What time did you go into the mine that morning?  
A. About 6 in the morning.  
Q. Whereabouts in the mine did you work?  
A. First right.  
Q. On what face or entry?  
A. First heading.  
Q. What unusual occurred in the mine that morning?  
A. I know nothing what happened.  
Q. Did you feel the force of an explosion?  
A. All I know we went to work that morning and we had no cars; so we started to dig coal and then we went in 8; then at the time while we were eating there was a noise, or report; then I told my brother we better run—something had happened. He says: "Oh, what happened? I don't think anything happened." and took a pick and goes to the face and started to work. Then we started to run; then I don't remember nothing. I don't know where I came or what became of me.  
Q. Did the force extinguish your light?  
A. I don't remember; I was so frightened I don't remember anything.  
Q. How did you observe your partner digging coal, unless he had a light?  
A. He had a light.  
Q. How did you get out of the mine?  
A. I don't know.  
Q. Where were you when you first became conscious of your surroundings, after the explosion?  
A. When I came to—had my mind together—I recognized I was at home.  
Q. Do you know what was the cause of the explosion?  
A. I do not.  
Q. During the time you worked in the mines did you encounter any gas?  
A. Yes.  
Q. In what part of the mine?  
A. There was gas in the place where we worked.  
Q. On the day of the explosion?  
A. It was some time before. At this time we were driving a heading and gas

and water came in. We were driving a hole—I suppose high up—and gas and water came.

Q. How did you detect the presence of the gas?

A. My brother told me it was gas.

Q. Did it ignite and burn?

A. When we bored the hole, then the substance came out of the hole. He tried whether it would burn and it burned. It was on the ground. He tried it whether it would burn and it burned. Then he reported to the boss that there was gas and the boss told us to go to work, and after Christmas we got another place.

Q. About when was it before the explosion you found this gas?

A. Not more than three days before. He said we should stay in that place?

Q. Was there plenty of air moving in there to take the gas away?

A. There was bad air at the heading we were working on.

Q. Was the gas permitted to accumulate in the rooms so as to ignite with a light?

A. It was allowed after the firing; after we fired then there would be heat and here and there a little flame burning of the gas.

Q. Did you ever burn your person or body by lighting any gas in the mine?

A. No.

Q. Do you know of the gas exploding in any part of this mine?

A. I do not know; all I know it was very hot.

Q. But before this explosion occurred do you know of any?

A. There was before this once. It killed a horse. Three days before that it killed a horse.

Q. In what part of the mine?

A. It was on a heading.

Q. Which heading?

A. I don't know; I didn't go there very much; it was on a North.

Q. Did you see it personally or did you just hear of it?

A. I saw it.

Q. Do you mean you saw the explosion or saw the horse?

A. Right after the explosion we came through and we saw the horse. I didn't see the explosion, but I saw the horse and they said it was killed by an explosion.

Q. Do you know what was done with the carcass of the horse?

A. They buried it at night. It happened about 8 o'clock in the morning, about in the evening.

Q. Was there any man or person injured by the explosion that killed the horse?

A. No human was injured.

Q. I understand you to say it was on a heading. Was it near the end of the heading?

A. It was at the end of a heading; it was the seventh room.

Q. On what entry?

A. On the North.

Q. Did some man fire a shot in the room where the horse was killed?

A. There was a fire and burned the horse and the horse died.

Q. Do you know any persons who were engaged in burying the horse that was killed?

A. I do not know; it was some one from the company pulled him out and buried him.

Q. Who told you the horse had been burned?

A. I saw it by my own eyes.

Q. Did you see the gas ignite or did you see the horse?

A. I saw the horse that was burned and then I heard he was hurt from others; he was burned by gas. When I went down to the mine we passed the horse.

Q. Were they bringing the horse out then?

A. The horse was lying there when we passed by him.

By Mr. Alexander: Q. What was the color of the horse that was burned?

A. It was in the mine and I couldn't see what kind of color, and after he was buried I couldn't tell.

Q. How do you know he was buried?

A. I saw it with my own eyes.

Q. Where was he buried?

A. It was near the No. 3 mine where they buried the other horses now.

- Q. Where they buried the horses that were killed in the explosion?  
A. Yes.  
Q. Can you take some one and point out to them where this horse was buried?  
A. May be not I, but my wife; and right next to this horse they buried the other horses.  
Q. If you saw this horse buried there why can't you point out the place?  
A. They drug him on a platform and it remained there. It was a rope.  
Q. Who buried the horse or took the horse there and buried him?  
A. Some men sent from the company and they buried it.  
Q. How many men?  
A. Two.  
Q. How many days before the explosion was this horse burned?  
A. About three days.  
Q. What time in the day did you see the horse after it was burned?  
A. The morning when we went in the mines.  
Q. What time did you go in the mine that morning?  
A. May be it was 5 or 6; but it was about 6.  
Q. Did you pass the place where the horse was when you went to your working place?  
A. Yes.  
Q. What room did you work in on the morning of the explosion?  
A. The seventh.  
Q. You were working on the first right?  
A. Yes.  
Q. And on the first South?  
A. First, second, third, fourth, fifth, sixth, southern; nobody work there.  
Q. You worked in the seventh?  
A. I worked in the eighth.  
Q. Was it on the first right?  
A. It was on the left.  
Q. On the first South?  
A. First right from the first heading.  
Q. And room 7 or 8?  
A. Eight room.  
Q. Who did you tell about finding this gas?  
A. We told John, the boss.  
Q. John who? What was his other name?  
A. Not the old one—but the tall one—the big boss.  
Q. When did you tell him?  
A. The day was the same week.  
Q. Who told John about finding the gas?  
A. My brother; that we couldn't work in the place, there is gas and water in there.  
Mr. Alexander: We do not know anything about this story of the horse being killed and buried and would ask that the Coroner appoint some one to accompany this witness and ask him to point out where the horse was buried.  
Which request was granted by the Coroner.
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Next came ALONZO SHROYER, a witness of lawful age, who being first sworn, testified as follows:

### Testimony of Alonzo Shroyer.

Examination by Mine Inspector Paul:

- Q. Where do you live?  
A. On Mill Falls Run.  
Q. Near where?  
A. Monongah.  
Q. Where do you work?

- A. At No. 6 mine.  
Q. What is your occupation?  
A. Carpenter; repair work.  
Q. You worked at the blacksmith shop?  
A. I worked in the carpenter end of it.  
Q. You worked there on the 6th of December?  
A. Yes, sir.  
Q. Where were you when the trip of cars ran away?  
A. I suppose fifty or sixty feet from the mouth of the mine.  
Q. In which direction?  
A. Towards the fan.  
Q. Were you at that point when the trip started and ran away?  
A. Yes, sir.  
Q. Did you make any effort to derail the trip?  
A. No; I did not see the trip until it was passing me.  
Q. Where did you go as soon as the trip passed into the mine?  
A. I went immediately to the mouth of the mine, or near it.  
Q. What did you experience or observe there?  
A. I got knocked down and pretty well shook up.  
Q. How soon was that after the trip had gone into the mine?  
A. I don't know; I suppose a minute.  
Q. What knocked you down?  
A. The force of the explosion, I suppose.  
Q. About how far from the mouth of the slope were you when you were knocked down?  
A. Ten or fifteen feet.  
Q. Were you injured by the fall?  
A. I think so.  
Q. In what way?  
A. I had this ear [pointing to right ear] cut open and a gash behind the ear to the bone.  
Q. Was that by the fall or did something strike you?  
A. I think so.  
Q. Do you know what you fell on?  
A. No; I judge I fell against the switch stand.  
Q. What switch stand?  
A. The derailing switch.  
Q. Do you think the trip had had time to get to the bottom of the slope before the force came out?  
A. I think so.  
Q. You say it was about a minute after it passed you?  
A. I suppose so—to give it a rough guess.  
Q. Did you ever have charge of the derailing switch at that point, or ever operate it?  
A. I do not know. I believe I have operated it a few times. I do not know. The man who has charge of it may have called me to attend to the switch for him; I do not remember though.  
Q. Did you hear any noise from the direction of No. 8?  
A. No, sir.  
Q. You stated that you attempted to go into the slope after the trip went down?  
A. Yes, sir.  
Q. After the trip had gone into the mine did you provide yourself with a lamp?  
A. No, sir; I was on my way to the shop to get a torch to follow the trip.  
By Mr. Alexander: Q. How long was it from the time you saw the trip go into the mine until the explosion?  
A. I could not tell; I suppose a minute.  
Q. You were excited on account of the runaway trip?  
A. Some little, yes, sir.  
Q. And the explosion coming out and hitting you did not help matters?  
A. No, sir.  
By Coroner Amos: Q. How long was it until you became sensible?



- A. I was not insensible.  
Q. What came out of the mouth of the mine?  
A. Smoke, I guess; it looked like smoke.  
Q. What color was it?  
A. Dark; about like smoke.  
Q. Any fire?  
A. I do not think so; I did not see any or feel any.  
By District Inspector Laltue: Q. How long after this explosion commenced—how long did the smoke continue to come out of the mine?  
A. From the distance I went and where I went it must have been four or five minutes.  
Q. It could be longer?  
A. Yes, sir.  
Q. A continual discharge of brown smoke?  
A. Yes, sir.  
Q. Did you see any signs of flame?  
A. No, sir.
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Next came J. H. LEONARD, who being first sworn, testified as follows:

### Testimony of J. H. Leonard.

Examination by Mine Inspector Paul:

- Q. You live at Monongah?  
A. Yes, sir.  
Q. How long have you lived there?  
A. Seventeen years.  
Q. What is your occupation?  
A. For the last six or seven years I have been running the fan at No. 6 mine.  
Q. That is your present duty?  
A. Yes, sir.  
Q. Have you any other duty other than to attend to the fan?  
A. Along in the spring there was a switch put in there called the derailing switch. When the switch was put in, there was nothing said about who was to attend to it, and a day or two afterwards Mr. Dean came over and I asked him, I says, "Dean, who is to look after the switch?" He says, "It is up to you, I reckon." I says, "Charlie, you know I can't attend to that switch right and do my other work." He did not make any answer—just left it that way. I also told others that I could not look after it like it ought to be. I think Mr. Victor will remember I have told him, and I believe that—I can't think of his name—the mine inspector—I told him, or he heard me say something about it. I have the engine to look after and I have to oil the fan every few hours—slow the fan down and oil it—and then there is right smart trouble with the belt slipping.  
Q. Were you at the mine on December 5th, the day before the explosion?  
A. Yes, sir.  
Q. Was the fan running all day that day?  
A. Yes, sir. That fan had not stopped since the Sunday a week before. I stopped it in the evening for about two and a half hours.  
Q. Were you on duty on the 6th of December—the day of the explosion?  
A. Yes, sir.  
Q. Where were you when the explosion occurred—when you first had knowledge of the explosion.  
A. There was a trip of cars went out and I was out when they went to the switch. They stopped up on the knuckle for some cause. They stop there frequently, and especially when unloading box cars. They stopped this time and I waited a good bit for them to come back and they did not come back. Sometimes I call Mr. Morton to watch it for me if I have to oil the fan. If I have to run to the engine to see if it is running, I just run in and right back; but this time when I run in, just as I got one step in the engine room I heard the trip. I run out and the two last cars were going by. I stood there looking down the slope a little bit and the explosion came.

Q. What effect did it have on you?

A. It knocked me down and bruised my arm and ankle. I crawled around above to a pile of old stuff there and there was a hole there and I let myself through down under the trestle.

Q. Was the smoke coming out of the slope?

A. Yes, sir. Well, it looked like steam, as near as I recollect. It might be more like a big steam pipe.

Q. You were on your way to oil the fan?

A. Not then. I had been in a few minutes before that to oil the fan. The oil sometimes stops in the cups on the wrist pin and it only takes a couple of minutes to get it hot. I run in to see if the oil was running.

Q. How long previous to the trip's running away had you oiled the fan?

A. Not more than fifteen or twenty minutes.

Q. You spoke of having called to some man at times. For what purpose did you usually call him?

A. To watch the switch until I could go and oil the fan. I did that, and if they had time they came, generally, and if they did not have time I did not call on them, or they would tell me they were busy. I would call on the blacksmith sometimes if he was not sharpening tools or shoeing horses, and he would come.

Q. Does the fan at No. 6 have a recording pressure gauge to indicate the pressure?

A. Yes, sir.

Q. Who puts in these indicator cards?

A. The night man; but on the night of the 4th I was on duty; I put the one on that night—the first I ever put on.

By District Inspector LaRue: Q. What length of time was it after you heard the trip running away until you were knocked down?

A. I could not tell; a very short time.

Q. Give us your opinion?

A. I could not have any idea. I was standing looking at the trip.

Q. From the point when you first discovered it until you were knocked down what length of time elapsed?

A. Indeed I do not know; I hardly think it was a minute; it didn't seem no time. Mr. Shroyer come up while I was there. He was working out about the fan house and he come out there and I spoke to him. I says, "I am afraid there might be some one caught in the slope".

Q. What did you have reference to?

A. I was afraid some one might be coming up.

Q. Did you see any signs of flame at that point?

A. No, sir; I do not think so. If I had I should have felt it, I think.

Q. Was the smoke hot?

A. No, sir.

Q. Was there not a warm undercurrent that struck your head and deposited something that you could not wash off?

A. Yes, there was soot and gravel and stuff, but as I recollect it it was cold.

Q. Was not there a deposit on your scalp that you could not wash off?

A. Yes, sir.

Q. It is there yet?

A. Yes, sir.

Q. Do you think you could wash it off?

A. I used oil and soap.

Q. It is pretty tight yet?

A. Yes, sir.

Q. In your opinion how long did this exhaust continue—blowing out the smoke?

A. Not so very long; I crawled around there when it struck me and I was not long about it; I dropped down under the trestle and I don't think I was there more than a minute until I came up and it was still blowing some.

Q. Did you notice any signs of a quick, rapid, backward motion?

A. No, sir; it seemed to be a continuous blow like a steam pipe.

Q. Did you put anything over you?

A. As I crawled around there I pulled a piece of car door down on me; I thought it would protect me.

Q. When you got down through this hole did you find anyone else there?

A. Mr. Graves.

Q. Had he gone out of the way of the storm?

A. He was under there as soon as the explosion came.

Q. You have not gotten this glue out of your head yet?

A. No, sir.

By Coroner Amos: Q. Did you see any of the firemen that morning?

A. I won't say I did. Two fire bosses go in at about 1 o'clock and I got there at 5:30. The other fire boss comes at 5:30, but sometimes he has gone when I get there. I will not be positive.

Q. You did not see one of them ten or fifteen minutes before the explosion occurred?

A. No, sir.

By District Inspector LaRue: Q. Did you see one of the motormen come out while the trip was standing there?

A. No, sir.

Q. He did not come out that you know of?

A. No, sir.

Q. Do you remember of my visit about that time—of my talking the matter over with you—the matter of the throw-off switch?

A. Yes; I think I told you you could see I could not attend to it right.

Q. Did you have orders from your superior officers in case you had to leave the switch to call a man to that place?

A. No, sir; I never heard any such orders; I never heard of any one having orders to help me.

Q. That switch was left unattended at times?

A. As I say, I left it at times to go to the engine.

Q. You did not call anyone that morning to attend to it?

A. No, sir; I thought I would be there as quick as anyone.

Q. What was the reason of your not calling anyone?

A. The blacksmith was shoeing horses and I did not know there were two men there. There was only two carpenters there and they were both busy back of the fan house.

By Mine Inspector Paul: Q. Did you have any occasion to speed the fan a short time previous to the explosion?

A. No, sir; the fan was run by a governor and it was set at a certain speed—a regular speed.

By District Inspector LaRue: Q. Did anyone come out of the mine before the explosion and speak to you about speeding the fan?

A. No, sir; I never had any orders to speed the fan. The night man did, though, after the explosion.

Q. What speed does the engine usually run?

A. The engine is set at 112.

Q. Do you know the speed of the fan?

A. If the belt is not slipping the fan would make 224 revolutions. I try to hold it at that as near as possible. Sometimes I notice it will begin to start down when the belt slips and I rosin the belt to bring it back.

Q. What was the speed of the engine at the time of the explosion?

A. I could not say; it was the same all morning before that.

Q. Did you remain at the mine after the explosion, in charge of the fan?

A. Yes, sir.

Q. How long was it out of service?

A. It did not stop at all but the belt was slipping so it was not doing much good. It was getting its air at the end of the building that was torn off, and it made it pull heavy. Mr. Dean called to me to shut it down—that it was not doing any good. They could not repair the fan while running. It was not very long until it was started; maybe a half hour.

By Mr. Alexander: Q. What do you mean, that the speed of the engine was 112?

A. One hundred and twelve revolutions a minute.

Q. And the fan 224 revolutions a minute?

A. Yes, sir.

Q. The fan was not shut down at the time of the explosion but you shut it down afterwards?

A. It had not been shut down since the Sunday a week before, until some one ordered me to shut it down to make that repair.

Q. How far is this derailing switch from the mouth of No. 6?

A. About twenty-five or thirty feet.

Q. How far is it from the engine house that runs the fan?

A. I never measured that either; I suppose seventy-five or one hundred feet.

Q. From the switch?

A. Yes, sir.

Q. You say no one told you, when you could not attend to the switch, to call some one else?

A. No, sir.

Q. Mr. Ruckman may have told you and you forgot it?

A. I don't know. Mr. Ruckman came over there the day those four cars went down and asked if the switch was thrown and I told him it was not. If there was anything said I do not remember.

Q. What was the reason you did not call anyone on the day of the explosion?

A. There were only two men close and one was shoeing a horse and the other was working back of the fan house. I did not see him at that time but he was working there, I know.

Q. You thought you could get back in time to throw the switch?

A. Yes, sir.

Q. All the cars had gone by the switch except the two rear ones?

A. Yes, sir; they were passing.

Q. How many cars were there on that trip?

A. I do not know; the usual trip runs from eight to fifteen.

Q. Do you remember whether there was a water car on the rear end?

A. I did not notice.

Q. What is done with these fan records—these speed guage records?

A. They are taken to the office, I think.

Q. Who turns these records in?

A. The fire boss.

Q. Who turns them over to the fire boss—the night man?

A. Yes, sir; he puts it in a drawer and the fire boss gets it.

Q. Who is the engineer that ran opposite to you?

A. Michael McDonald; he was sick at that time.

Q. Who ran the engine the night of the 5th—before the explosion?

A. Mr. Lambert.

By Mine Inspector Paul: Q. You spoke of having been cautioned about your work at the time another trip had run into the mine. How long previous to the 6th of December was it that that trip went down in the mine?

A. With the four empty cars?

Q. Yes.

A. I would not say exactly; a week or two before.

Q. Was any damage done by that?

A. I do not know anything about that.

Q. Did you see the trip run into the mine?

A. I saw the cars going.

Q. What did it consist of?

A. Four empty cars. They had been shoved over the knuckle.

Q. Was the derailing switch set for the main track at that time?

A. Yes, sir; I used to throw the switch when the trip went up and there was a heap of steam that came right after it and you could not tell whether the rope was to them or not. The pit boss was there one morning and I told him I wished he would watch the switch while I went to see about the engine. The trip went by while I was gone and he wrecked them. I had wrecked several myself, with the rope to them. He let it run through—thought it was loose. He forbid me to throw the switch until I knew they were loose. He said he would sooner have them at the bottom than to have the timbers knocked out of the mouth of the pit. He said he had a good place for them at the bottom for he could run them on to the side track and hurt nothing.

Q. What pit boss?

A. Mr. Donlin.

By District Inspector Mr. LaRue: Q. Are you subject to the mine foreman's instructions?

A. He is the man that gives me more instructions than anyone else, and about the fan, too. He always cautioned me to be very careful and keep it at a proper speed and see that nothing went wrong, regardless of anything else.

Q. You obeyed his orders in regard to that switch—considered that a part of your duty.

A. Yes, sir, and also the fan.

By Mine Inspector Paul: Q. Do you know anyone who was at the bottom of the slope the time the four empty cars went into the mine?

A. No, sir; I know who was the coupler.

Q. Is he still living?

A. I do not know who was coupling that day, but Mr. Sloan was the regular coupler.

Q. Is he still living?

A. Yes; he was not working the day of the explosion.

Q. What is his first name?

A. William, I think.

By District Inspector LaRue: Q. Have you any knowledge of any man being sent into No. 6 to water that heading the night before the explosion, or do you know of any man coming out who had been in for that purpose?

A. On the night of the 4th I was on duty, and there is a signal to let the men out of the pit, and a man came out. He was an Italian. He had a horse, and said he had been watering the track. Motorman Cooper came out in the morning.

Q. You do not know what part of the mine they watered?

A. No, sir.

Q. What time did that man come out with the horses?

A. I think fifteen minutes to 2 o'clock. I looked—on account of Mr. Donnelly—as he wanted to know the time the men came out. Mr. Cooper came out after daylight.

Q. Did the men frequently go in to water the track?

A. There are men who go in, but I worked in the day time and they water at night and on Sundays. Very frequently they water on Sunday. I think Saturday night and Sunday is the general time for watering.

Q. Is it not a fact that shortly before the explosion two men went to the bottom of the slope to water it and did not do it? Didn't one lay down in the shanty and go to sleep and the other took the horse to the stable?

A. I could not say. I saw the man, who took the horse, come out at fifteen minutes to 2; the other did not come out until after daylight.

Q. Didn't he tell you that the other man was asleep in the shanty?

A. I do not think so; he came in and set his bucket down and he went over to town, I believe.

Q. You have not stated that these men did work that night?

A. No.

By Mr. Alexander: Q. Do you know whether Fred Cooper had been watering on the night of the 4th?

A. Yes, sir.

By Mine Inspector Paul: Q. Had you ever seen any men or animals brought out of this mine previous to this that had been burned by gas?

A. Not for a good while.

Q. Since the Fairmont Coal Company has had charge of the mines?

A. I saw a mule that had gotten its ears singed and they said it was by gas.

Q. How long ago.

A. A year or so.

By Prosecuting Attorney Lowe: Q. Do you know of any other explosion having occurred at No. 6 prior to this time?

A. No, sir.

Q. Do you know anything about a small explosion a week before?

A. No, sir.

Next came ED FRY, who being first sworn, testified as follows:

### Testimony of Ed Fry.

Examination by Mine Inspector Paul:

- Q. What is your occupation?  
A. Stationary engineer.  
Q. Are you the hoisting engineer?  
A. Yes, sir.  
Q. How long have you acted as such?  
A. Since it started.  
Q. How many years?  
A. Six, I believe.  
Q. Were you on duty on December 5th—the day before the explosion?  
A. No, sir.  
Q. On duty December 6th?  
A. Yes, sir.  
Q. Did anything occur unusual in connection with the mechanical part of the hoisting plant?  
A. The trip broke loose.  
Q. What evidence did you have of the trip breaking loose?  
A. When the trip left the rope the engine speeded up.  
Q. Did you have any knowledge that the trip had been derailed or had gone into the mine before leaving your post?  
A. No, sir.  
Q. Did you have any electric lights in your engine house?  
A. Yes, sir.  
Q. Were they on at the time you hoisted the trip?  
A. There was one on; I kept one on.  
Q. Was that light extinguished shortly after the trip broke loose?  
A. Yes, sir.  
Q. Were you still in the engine house?  
A. I could not say whether I was in the house or had gone to the door.  
Q. Did you hear a report of any kind?  
A. Nothing only the jar at the door.  
Q. Was that before or after the light was extinguished?  
A. I could not say.  
Q. Where did you go after you went to the door and felt the concussion?  
A. I staid in the door.  
Q. Do you know what caused the concussion?  
A. No, sir.  
Q. When did you first learn that something unusual had happened in No. 6?  
A. One of the firemen came across and told me No. 6 had exploded.  
Q. From the power house?  
A. Yes, sir.  
Q. Did you then go to a point where you could see No. 6?  
A. Yes, sir.  
Q. Where was that?  
A. I went to the power house—the lower side there, next to the river.  
Q. What did you observe at No. 6?  
A. I saw the smoke and dust coming out of the air shaft.  
Q. How long after the trip broke did the fireman call to you that the mine had blown up?  
A. I could not say.  
Q. Was it ten minutes?  
A. I could not say.  
Q. What is the purpose of that one light burning in the engine house?  
A. I keep the light burning in case the circuit breaker goes out—the light goes out. If it goes on it goes back on. It is connected with the main current of 250 volts.  
Q. What kind of an engine—stationary?  
A. Yes, sir.

Q. If you are pulling a loaded trip of cars out of the mine and the light is extinguished you stop pulling?

A. Yes, sir.

Q. Why?

A. You are likely to have a wreck.

Q. What would that indicate—the probability of the cars having been wrecked coming out or going in and breaking the wires?

A. No; sometimes the circuit breaker goes out frequently during the day.

Q. That may be occasioned by some heavy work being done in the mine?

A. I suppose so.

By District Inspector LaRue: Q. If it broke loose would the ropes rebound?

A. No, sir.

Q. You have some disturbance of the ropes?

A. The engine speeds up and that takes up the slack.

Q. How long had the trip been standing there? You hauled the trip to that point?

A. Yes, sir.

Q. How long had it been there?

A. Probably ten minutes.

Q. How many cars were there on that trip?

A. I don't know.

Q. You could not see the cars from where you were?

A. Not until they came on the tippie; I could then see one or two.

Q. The trip all went back?

A. Yes, sir.

Q. Do you know how long it was after it broke loose until you discovered the explosion had occurred?

A. Probably a minute.

By Mr. Alexander: Q. You say the circuit breaker goes out frequently without the trip being wrecked?

A. Yes, sir.

By Mine Inspector Paul: Q. Have you ever had a wreck on the slope that did disturb the wires?

A. I could not say. Sometimes the light goes out when there is a wreck, but I could not say that did it.

Q. It has been stated that a week or two prior to this explosion four empty cars went into the mine. Do you know about that?

A. Some cars went back but I do not know how long ago.

Q. Do you know whether your light was extinguished by that trip going back into the mine?

A. I cannot recall.

Q. Were you on duty the day the trip went back with the empty cars?

A. Yes, sir.

Q. Were you letting the cars into the mine or were they pushed over the knuckle?

A. I could not say.

Q. Do you know if you were lowering the trip?

A. Yes, sir.

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Next came A. H. YOST, who being first sworn, testified as follows:

### Testimony of A. H. Yost.

Examination by Prosecuting Attorney Lowe:

Q. Where do you live?

A. Monongah.

Q. How long have you lived there?

A. Nine years.

Q. What is your occupation?

A. Running the fan at No. 8.

Q. Day turn?

- A. Night turn.  
Q. Who worked the day turn?  
A. Mr. Bice.  
Q. He is dead?  
A. Yes, sir.  
Q. Was there anyone else who had been working in your place at No. 6—working at the fan?  
A. No, sir.  
Q. Were you on duty the night before the explosion?  
A. Yes, sir.  
Q. Your work stopped when?  
A. At 5:30 or 6 o'clock.  
Q. Then Mr. Bice took your place?  
A. Yes, sir.  
Q. Did the fan run all night?  
A. Yes, sir.  
Q. Did you stop at all?  
A. No, sir.  
Q. Is there some way of measuring the pressure?  
A. Yes; a pressure gauge.  
Q. How often is that changed?  
A. It changes when we change shifts—every twelve hours.  
Q. Who changed it?  
A. We changed the sheet at 12 o'clock at night.  
Q. Just once a day, then?  
A. Yes, sir.  
Q. Who changed it?  
A. The fire boss.  
Q. Who was fire boss at No. 8?  
A. Pete McGraw.  
Q. What other fire boss had you there?  
A. Patsy Kerns.  
Q. Is either of them living?  
A. One of them—Mr. McGraw.  
Q. Only two fire bosses there?  
A. Only two that I know of.  
Q. Who was foreman?  
A. John McGraw.  
Q. Any more than one?  
A. I do not know; I suppose he had an assistant.  
Q. What would be done with the gauge or sheets?  
A. The fire boss took them to the office?  
Q. Was that change made at 12 o'clock on December 5th?  
A. Yes, sir.  
Q. Who changed it?  
A. I did, I believe.  
Q. How did you come to change it?  
A. Sometimes I would change it.  
Q. What did you do with it?  
A. Give it to the fire boss.  
Q. What did you do with this particular one?  
A. I hung it on a nail and the fire boss got it.  
Q. Do you know what he did with it?  
A. Took it to the office I suppose.  
Q. Have you seen it since?  
A. No, sir.  
Q. Do you know what that register showed when you took it down?  
A. No, sir.  
Q. What was the average? What did it usually read?  
A. You mean the speed?  
By Mine Inspector Paul: Q. How much pressure did the card usually indicate?  
A. I do not know.



Q. Can't you read the card?

A. I do not know how much pressure.

Q. Where was the red line—between 2 and 3, or 3 and 4?

A. I do not remember.

By Prosecuting Attorney Lowe: Q. Do you know whether No. 8 mine was working the day before the explosion?

A. Yes, sir; the fan was running.

Q. Was the mine running?

A. No, sir.

Q. Who was on duty at the fan the day before?

A. Mr. Bice.

Q. And you took his place, when?

A. In the evening.

Q. Was the fan run regularly when you went there—was it running regularly?

A. Yes, sir.

Q. Did it run the night before?

A. Yes, sir.

Q. You were on duty?

A. Yes, sir.

By Mine Inspector Paul: Q. I hand you here a pressure card. Will you look at it and state whether it looks like the card, or may be the card you took from the fan on the night of the 5th?

[Here witness is handed card.]

A. It looks something like it, I believe.

Q. And this card here indicates the record for the 4th? Does that resemble the card you remember taking off the gauge?

A. Yes.

Q. Where were you on the day of the explosion, at that time?

A. At home asleep.

By Mr. Alexander: Q. Where did the fire boss get the fan records?

A. He took it out of the fan house, I suppose, about 2 o'clock.

Q. The morning of the explosion?

A. Yes, sir.

Q. Who got it?

A. Pete McGraw.

Q. When had that fan been stopped previous to the explosion?

A. I could not tell you. They generally stopped it on Sunday, if they stopped at all, to do packing or something.

Q. Was it stopped the preceding Sunday?

A. I think not.

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Next came A. J. RUCKMAN, who being first sworn, testified as follows:

### Testimony of A. J. Ruckman.

Examination by Prosecuting Attorney Lowe:

Q. You live at Monongah?

A. Yes, sir.

Q. How long have you lived there?

A. Eighteen years.

Q. You were on duty on the 6th of December?

A. Yes.

Q. Where were you at the time of the explosion?

A. In my office with the outside foreman, Mr. Dean.

Q. You were not out so you could see the explosion?

A. Not the first, no. The first thing we heard was the loud report and severe concussion. It shook the office and Mr. Dean says, "There goes No. 8 boiler." We both went out on the porch and looked toward No. 8, as that is where the report sounded, but there was nothing visible—didn't see any smoke or anything. Then we were attracted to No. 6 by a loud noise and looked down and the smoke was coming out of the air-shaft pretty strong, under high pressure. I turned to Mr.

Dean and said, "From the appearance it looks like No. 6 fan house is damaged. Get the men and material there as soon as possible and I will go to No. 8, and if that fan is not damaged we will reverse it."

Q. It was very badly damaged?

A. Yes, sir.

Q. At the time of the explosion what were the equipments of those mines in regard to modern machinery?

A. They were equipped with very modern machinery—right up to date. Do you mean the ventilating machinery?

Q. The general equipment.

A. It was good—the best we could get.

Q. What system of coal mining was employed? How was the coal taken out?

A. Hauled out with electric locomotives on the main haulway.

Q. What is your occupation?

A. Superintendent of the Monongah mines.

Q. For what company?

A. The Fairmont Coal Company.

Q. Do the Monongah mines include No. 6 and No. 8?

A. Yes, sir.

Q. You were superintendent at both those mines?

A. Yes, sir.

Q. Operated by what company?

A. The Fairmont Coal Company.

Q. In Marion County?

A. Yes, sir.

Q. You have been there practically ever since they started?

A. Yes, sir.

Q. How long have the mines—No. 6 and No. 8—been operated?

A. No. 6 was started in 1900, and in No. 8 the ground was broken on the 12th day of May, 1905.

Q. No. 6 has been operated seven or eight years and No. 8 about three years?

A. A little over two years.

Q. As superintendent of the mines what are your duties?

A. They vary.

Q. Well, in a general way?

A. I have a good many duties—looking after the machinery of all kinds, hiring the men, shipment of coal—the output—etc.

Q. At No. 6 there was a slope. Was there a slope at No. 8?

A. Yes.

Q. Was it hauled up both these slopes with wire ropes?

A. Yes; by stationary engines with a wire rope.

Q. What was used by the men in the actual mining?

A. A great deal was done with the electric mining machine.

Q. What kind of a machine is that?

A. A seven-foot undercut chain mining machine. Some of the work was done with a pick, in case of a bad roof where the machine couldn't work, or pillar work.

Q. The part done by the chain machine—what was the result of that? In what condition did it leave the coal?

A. The first cutting?

Q. Yes.

A. Small coal—dust in it.

Q. Considerable dust?

A. Yes.

Q. And after that the coal was shot down?

A. At No. 6 and No. 8 we loaded the dust before the miner was allowed to shoot.

Q. After the undermining in both mines you loaded the dust?

A. Yes, sir.

Q. And what was done with it?

A. Loaded on to a car.

Q. Where did you take it?

A. Out of the mines.

Q. Was anything else done in the rooms that had been undercut, before the shot?

- A. No, sir.
- Q. You did not watering before the shots were fired?
- A. Not in the rooms.
- Q. After the dust was removed the coal was shot and loaded by the miners?
- A. Yes, sir.
- Q. You had regular men to run the machines?
- A. Yes, sir.
- Q. The shooting was done by the men generally?
- A. By the miners.
- Q. Just before that had there been considerable dust removed at one time? Had you not been cleaning the mine?
- A. We worked at the mine all the time. We did not allow the dust to accumulate in dangerous quantities; it was removed or watered.
- Q. What equipment had you for watering?
- A. At No. 6 we had a very large water car holding about three hundred and fifty gallons, hauled by an electric motor. Then a small one of about two hundred and fifty or three hundred gallons hauled by a horse. At No. 8 we used the horse. The water was hauled every night.
- Q. Do you remember the men at these two mines in charge of the work?
- A. No, sir. At No. 8 the regular man was Pasquel—that's his last name; at No. 6 it was a different motorman—whoever the pit boss would designate.
- Q. Do you know whether that man is living?
- A. The No. 8 man is.
- Q. His name is Pasquel?
- A. Yes, Toney Pasquel, I think.
- Q. Are there any of the motormen at No. 6 living?
- A. No, sir.
- Q. All killed?
- A. Yes, sir.
- Q. How often and what part of the mines were watered?
- A. That is the pit boss's duty. I could not say.
- Q. Are there any of the pit bosses at these mines living?
- A. No, sir.
- Q. Had there been any accident or explosion in either of these mines recently before this?
- A. Not that I know of.
- Q. Had there been any irregularity or accident at No. 6 a week or so before?
- A. I never heard of it.
- Q. Something has been said about a horse being killed by gas a short time before this, in No. 8. Do you know anything about that?
- A. At what time?
- Q. Shortly before the explosion—three days before?
- A. I never heard of it; it could not have happened or I would have known it.
- Q. Your animals—your live stock—was accounted for in some way?
- A. Yes, sir; we have a perfect system of accounting for the live stock.
- Q. Whose duty was it to report to you any loss of live stock?
- A. A death from a runaway or any other cause would be reported by the mine boss and stable boss both. The stable boss keeps a complete record of each horse; each one is numbered.
- Q. No such report was made to you a few days before this disaster?
- A. No, sir.
- Q. Who is the stable boss?
- A. Ben Coon, at No. 8, and Mr. Dean has general supervision over the work.
- Q. If such a loss occurred in the mine it would have been reported by the pit boss?
- A. Yes, sir; and a description of the accident; and also the stable boss would make his report.
- Q. Is the pit boss of No. 8 living?
- A. No, sir.
- Q. Just previous to this was there a small explosion of gas in one of these mines by which one of the horses was slightly hurt?
- A. Yes, sir; about two months before.

- Q. Where?
- A. At No. 8.
- Q. What was the extent of it?
- A. The horse's ears were burned; not much damage. The horse was working inside of six or seven days. He was working the day of this explosion.
- Q. Do you know how it was occasioned?
- A. Only from the report given me.
- Q. What was that report?
- A. The fire boss had discovered a little gas and he reported it about two and a half inches from the roof and about ten feet back. He cautioned the men about it and particularly a driver. He told him to keep his light down until they got the gas out. The driver went in for a load of coal and in some way got the car off the track, and, without thinking, he lighted the lamp in his cap and that fired the gas. It was very small in quantity.
- Q. Where was that?
- A. In No. 8.
- Q. You do not know the exact location?
- A. No, sir.
- Q. Do you know whether your employes were furnished with a copy of the mining laws?
- A. Yes, sir.
- Q. In what form?
- A. In printed pamphlet form.
- Q. Is this the form you mean?
- [Handing witness a pamphlet.]
- A. Yes, sir.
- Q. Had that been done before the explosion?
- A. Yes, sir.
- Q. How long before?
- A. Two or three months—three months, I would say. They were given out as soon as we got them.
- Q. The card of instructions mentioned in the mining laws to be tacked up at the mine opening—was that done?
- A. Yes, sir; we had them in seven languages.
- Q. When was that done?
- A. We had them up in different languages for several years, but after the change in the rules they were put up immediately.
- Q. You were at No. 8 soon after the explosion?
- A. Yes, sir; in possibly five minutes.
- Q. Did you notice whether the danger signal was exhibited?
- A. It was not there—it was blown away.
- Q. How about No. 6?
- A. I did not get there for some time; I stayed at No. 8.
- Q. The blackboard at No. 8 containing the report of the fire boss—was that blown away?
- A. Yes, sir.
- Q. The one at No. 6 was out of the direct road of the explosion and was not blown away?
- A. No, sir.
- Q. Was it preserved?
- A. Yes; in my office.
- Q. Will you bring it down in the next day or so?
- A. Yes, sir.
- Q. Some of the fan men testified that the records for the fan houses were taken by the fire boss to the office at Monongah. Is that correct?
- A. Yes, sir.
- Q. Were such records brought to your office, showing the reports for the fan houses for the 6th of December and a day or two before?
- A. Yes; they were brought a day or two before that—the 5th.
- Q. Was not the record for the 6th filed in your office?
- A. No, sir.
- Q. Nor for No. 8?

- A. No, sir.
- Q. Look at these records and see if they are the ones filed in your office?
- A. Yes; No. 3, 4 and 5 were; this one was not.
- Q. From what mine?
- A. No. 8.
- Q. And the one for No. 6 was not?
- A. No.
- Q. Do you know how it was obtained?
- A. It was found; the guage was blown away. It was found by Mr. Flaherty and Mr. Petticord. Nos. 5, 4, 3 and 2 were brought to me from No. 6.
- By Mine Inspector Paul: Q. Can you give the dimensions of the No. 6 fan?
- A. Yes; 9 by 11 feet.
- Q. Which was the diameter?
- A. Eleven feet.
- Q. What make of fan?
- A. The triple plan, made by Clifford.
- Q. What is its rate of capacity?
- A. My recollection is—it has been so long since we bought it—that 450 revolutions gave 350,000 cubic feet of air.
- Q. And what water gauge?
- A. I do not recall that. I never had occasion to look that up. I am only speaking from memory and the information given by Clifford.
- Q. Do you have any monthly, or weekly, or any regular reports of the fan on the cubical feet of air?
- Q. Yes, weekly reports.
- Q. What is the dimension and make of the fan at No. 8?
- A. That's a Connellsville fan made by Lepley—8 by 22.
- Q. What is its capacity?
- A. I never saw the rating. Whether it would hold up or not I don't know, but it makes over 220 feet of cubic air per revolution.
- Q. Can you furnish a record of the volume of air passing through different parts of the mines from a recent date, prior to the explosion?
- A. Yes, sir.
- Q. Could you incorporate some of these into your testimony?
- A. I presume I could.
- Q. What character of explosives are used for blasting down coal in the rooms and entries in No. 6 and No. 8?
- A. We use 3F black powder.
- Q. Was there any dynamite used?
- A. No.
- Q. Are the holes drilled for blasting done by the miners or by electrical machinery?
- A. By the miners, except one face at No. 8.
- Q. What place is that?
- A. I don't know the location. A contractor by the name of Preston had a portable Jeffrey's auger and he worked four or five men.
- Q. Do you have any regulations as to the amount of powder that may be used in shooting the coal?
- A. No; only what instructions the pit boss would give the men.
- Q. Do you keep a file and record of the pressure charts taken from the two fans?
- A. No; they are mailed to the general superintendent.
- Q. The Fairmont Coal Company keeps those charts?
- A. Yes.
- Q. What are the advantages of having the pressure charts?
- A. It is a record of whether the fan man is doing his duty.
- Q. Do these pressure charts indicate any irregularities of the running of the fan?
- A. Yes; if the engineer would allow his steam to go down or slow the engine down to take it easier, it would show instantly.
- Q. Does the use of the chain electric machine cause to be put into the mine a greater quantity of fine dust than would be made by pick mining?
- A. I don't know; that would depend on how it was run.

Q. Does the use of the chain cutting mining machines necessarily shoot the coal harder than if the coal was undercut by the use of a pick?

A. Yes; the first shot, only—the center shot.

Q. What is the average height of coal at No. 6 and No. 8?

A. I would say eight feet.

Q. How high is the cutting made by the chain cutting machine?

A. Four inches.

Q. How many shots are used for dislodging the coal?

A. In a room I presume three shots—the same as the heading.

Q. How are the shots placed with reference to the face of the room?

A. One shot is placed in the center, shot out and loaded up, and the other shots are placed a foot or so from the rib.

Q. What provisions have you for supplying the mine employes with powder?

A. It is issued in five-pound cans.

Q. Have you had many men burned in the mine by the ignition of gas prior to the 6th of December?

A. No.

Q. Have you had any?

A. Not that I know of.

Q. Do you know if the driver who lighted the gas that burned the horse that you speak of was also burned?

A. I don't think so; he is living.

Q. Who was the driver?

A. Fred Stubbs.

Q. Have you made an examination of No. 6 and No. 8 since the explosion?

A. No.

Q. Prior to the day of the explosion when were you last in this mine?

A. I suppose two months before.

Q. And in No. 8?

A. John McGraw, mine foreman, Pat Laughler, his assistant, and two fire bosses.

Q. Were these men experienced mine men?

A. Yes; they were considered experienced and competent.

Q. Had you any plan of having conferences with your mine foremen and fire bosses with a view of familiarizing yourself with the safe condition of the mines?

A. We generally met once a week.

Q. Under whose direction did the mine foremen and fire bosses work—under you?

A. What part of the work?

Q. I merely wish to ascertain if you had a general mine foreman?

A. Not at this time; we did until recently.

Q. Who was he?

A. Mr. Victor.

Q. Still in the employ of your company?

A. Yes.

Q. In what capacity?

A. As inspector.

Q. How many inspectors has the company?

A. I don't know.

Q. Do you know if Mr. Victor had been in No. 6 and No. 8 prior to the 6th of December, and how recently?

A. About two weeks before.

Q. Did you have a conference with him after his visit to the mine?

A. No; but I got a copy of his report?

Q. What was the nature of his report?

A. Good; the condition was good.

Q. Is Fred Stubbs living?

A. Yes.

Q. I hand you here a photograph of the blackboard with some writing on it. Will you identify that, if possible, and tell what it is?

A. Fire boss's blackboard on the morning of the 6th.

Q. Do you recognize the names of any of the fire bosses?

A. Yes; L. E. Trader.

Q. Is he living?

A. Yes.

Q. You have in your possession a copy of the report made by the inspector at No. 6 and No. 8?

A. No; not with me.

Q. Could you produce it?

A. I expect so.

Q. To whom are these reports referred—after being received by you—if any recommendations are to be made?

A. The report of the inspector?

Q. The State inspector.

A. They give them direct to the mine foreman; I never see them.

Q. Explain what the purpose of this board is at the opening of the mine.

A. It shows the condition of the mine for the guidance of the foreman.

Q. Where was the board located with respect to the opening?

A. On a little oil house within twenty feet of the mouth of the mine, to the left.

Q. In plain view of anyone going into the mine?

A. Yes.

Q. You spoke of loading up the machine cuttings before the shooting of the coal. For what purpose? Is it dangerous to have the machine cuttings there when a shot is made?

A. Yes; if the dust is dry. It is a matter of precaution.

Q. How many other mines have you charge of?

A. Two.

Q. Prior to December 6th was the mining and shooting of the coal in those two mines done the same as No. 6 and No. 8?

A. Yes.

Q. Are the same practices observed in those mines now as before December 6th?

A. Yes; practically the same.

Q. Are you using black powder in those mines?

A. Yes.

By Coroner Amos: Q. What is done with the coal dust?

A. It is loaded in railroad cars and taken away.

By Mr. Alexander: Q. How long have you been at Monongah, connected with the mining of coal there?

A. Fourteen years.

Q. You have been with the Fairmont Coal Company since 1901?

A. Yes.

Q. And prior to that time you were with the Monongah Company?

A. Yes.

Q. In what capacity did you serve the Monongah Company?

A. Superintendent.

Q. Were you superintendent of the plant No. 6 prior to July, 1901?

A. Yes.

Q. Did you have charge of No. 8 from the time it was started in May, 1905?

A. Yes.

Q. What was the extent of Mine No. 6 when the Fairmont Coal Company took charge of it in 1901? How far was it driven in?

A. I could not say without the records.

Q. Well, it has increased in size materially?

A. Yes; very much.

Q. What was the system of ventilation at the time the Fairmont Coal Company took charge?

A. An exhaust fan.

Q. The same they have now?

A. Yes.

Q. What system of getting the coal out was in vogue when the Fairmont Coal Company took charge?

A. Motor haulage—electric mine locomotives.

Q. Hauling the coal to the foot of the slope at No. 6 and then to the tippie?

A. Out to the landing. The only change is the increased number of locomotives on account of the increase in the length of the haul.

Q. How do you arrange the watering? You speak of watering the heading and entries?

A. With a car.

Q. And at No. 6?

A. One large one and a small one.

Q. Where do you fill the cars?

A. At the pump.

Q. Where is that?

A. There are three small pumps located in there.

Q. They are filled from either of these?

A. Yes.

Q. How is it moved from one part of the mine to the other?

A. By the use of mine locomotives.

Q. How is it arranged so as to sprinkle it?

A. The end of the car is perforated and filled with wooden plugs. They take them out and spray the track.

Q. Does it spray the side of the ribs?

A. No; just the track.

Q. The capacity of the large car is 350 gallons?

A. Yes; and the smaller one about 275 gallons.

Q. What do you say as to the times at which they used these cars in No. 6?

A. That was entirely with the mine foreman.

Q. What were your instructions, if any?

A. To keep down the dust—not to allow it to accumulate—not to take any chances.

Q. How often was it watered?

A. In the colder months, very often. In the summer time it didn't require so much.

Q. Did you have a watering car at No. 8?

A. Yes.

Q. What was its capacity?

A. Three hundred gallons.

Q. Reference was made to this board at the outside of No. 8. Was there anything over the mouth of No. 8?

A. An iron gate.

Q. What was the object of that?

A. Not to allow anyone in until the fire boss had completed his examination.

Q. The gate was kept closed until the fire boss completed his examination?

A. Yes.

Q. How many fire bosses at No. 8?

A. Two—Kerns and McGraw.

Q. Do you know under what system they worked? Did they both come out and report or did one stay in the mine?

A. One went on duty in the evening at 6 o'clock and the other came on at 1 or 2 in the morning. Then they both made their examination in the three hours required by law. Then the man that went on duty at 6 left about 5:30 or 6 in the morning, and the other staid until 2 in the afternoon. Then the mine foreman assumed all duties until the night man came on again.

Q. What time in the morning was the gate open?

A. About 5:30.

Q. How many fire bosses did you have at No. 6?

A. Three—Jim Lyden, Mr. Morris and L. E. Trader.

Q. What was their system of making examinations?

A. The same as at No. 8. One would go on at 6 at night and the other two come on in the morning. They would make their examination; then the night man would leave and the other two would leave at two in the afternoon.

Q. One was there all the time?

A. Yes; practically all the time.

Q. Who was mine foreman at No. 8?

A. John McGraw.

Q. And No. 6?

A. Thomas Doulin.



Q. Did they have assistants?

A. Yes.

Q. Who was McGraw's assistant?

A. Mr. Laughler.

Q. And Mr. Donlin's?

A. Mr. Rogers.

Q. How long have you known Mr. McGraw?

A. Twelve years, I expect.

Q. How long had he been working in the mine there?

A. About that length of time. He worked in Pennsylvania prior to that.

Q. What do you know about his capacity and ability as a mine foreman?

A. Good—well posted.

Q. What experience had he had in Pennsylvania?

A. I don't know.

Q. How long had he been mine foreman?

A. I think two years before we opened No. 8. He was mine foreman at No. 3 and we transferred him.

Q. What did he do before he was mine foreman?

A. He first started at Monongah, helping his father. He was then only fourteen or fifteen years old. After that he was driver boss and gradually worked up.

Q. He served in nearly every capacity?

A. Yes; from trapper boy up.

Q. Was he ever fire boss?

A. No; he never worked in No. 6 and that was the only place we had a fire boss until we opened No. 8.

Q. How long had you known Donlin?

A. About the same length of time.

Q. In what capacity did he work around the mines?

A. He was a miner for a while, then a machine man, then assistant boss, then mine foreman.

Q. Who were the men directly in charge of the work in No. 6?

Q. Did he ever have any experience in other mines?

A. Yes; he was a man of considerable experience in Pennsylvania and all of the coal mines, I think, in this state.

Q. Did he have any education or training along that line?

A. Yes; he was well posted.

Q. Did he ever take any course of training or instruction along the line of his duties?

A. Not that I know of; but McGraw did, from this Scranton school.

Q. Your fire bosses in No. 8—Kerns and McGraw—how long had you known them?

A. Ten or twelve years.

Q. How long had McGraw been working there?

A. He worked in nearly every capacity. It must be fourteen years.

Q. Was he ever fire boss before?

A. No.

Q. He worked as a miner?

A. As a miner and a machine man and boss driver.

Q. What instruction or schooling had he?

A. He had taken this course from the Scranton school.

Q. How about Kerns?

A. I do not know whether he did or not. He is a man of considerable experience.

Q. How about Trader?

A. He has taken a course at the Scranton school.

Q. And Morris?

A. I do not know. He is a Pennsylvania man.

Q. How long had he been around Monongah in the mines?

A. About four years.

Q. Who was the other one?

A. Tim Lyden.

Q. How long had he been there?

- A. Twelve or fourteen years.
- Q. And he had the same experience?
- A. Yes, sir.
- Q. Did any of these men have a fire boss's certificate from Pennsylvania?
- A. Not that I know of.
- Q. What can you say as to your experience with these men. Were they competent and qualified to fill their duties as fire bosses?
- A. Yes, sir; I think they were—all five of them. They were very energetic and loyal.
- Q. You have these two other mines under you?
- A. Yes, sir.
- Q. How did the mine foremen—McGraw and Donlin—compare with the foremen at these other mines?
- A. I hardly know how to answer that. They were a great deal more competent in these mines than the other man would have been in the same positions, though he is a very competent man, but he has never had any experience with gas.
- Q. Do you know the foremen in the employ of the Fairmont Coal Company?
- A. Some of them; yes.
- Q. How did these men compare with them—with the ones you know?
- A. Very favorably.
- Q. How about these fire bosses—were they as competent to fulfill their duties as the fire bosses at Shaver and No. 5?
- A. We had none there.
- Q. How do they compare with the other fire bosses in this region?
- A. I do not know the others.
- Q. Who is the general manager of the Fairmont Coal Company?
- A. L. L. Malone.
- Q. And general superintendent?
- A. J. C. Gaskill.
- Q. You referred to the fact that the company has some inspectors—Mr. Victor is one. You say when Mr. Victor or any of the inspectors visited the mines they reported to Mr. Gaskill?
- A. Yes.
- Q. And a copy of that report is furnished to you?
- A. Yes.
- Q. With any recommendations or suggestions that the general superintendent has to make?
- A. There are two copies furnished to me—one for each mine foreman—and I keep the other one.
- Q. Whatever is reported by the inspectors, copies of that are furnished you by Mr. Gaskill, with any instructions from him?
- A. Yes; if there is any need of them.
- Q. And one of those copies is furnished to the mine foreman?
- A. Yes.
- Q. Mr. Ruckman, what if any instructions have you had from the general superintendent or general manager in relation to making the mines safe—getting appliances to make it safe?
- A. I always had a free hand in the matter. There was never any question raised.
- Q. What were the orders or instructions from Mr. Malone or Mr. Gaskill? Did you get all the necessary material to get the mine safe?
- A. Yes.
- Q. How did you get material or supplies for the mines?
- A. Through a requisition made on the purchasing department of the company.
- Q. When you desired supplies for any purpose was it done in the form of a requisition?
- A. Yes.
- Q. Have you ever had any requisitions rejected for material to make the mine safe?
- A. No, sir.
- Q. How soon have these materials been furnished to you for the purpose of making the mine safe?
- A. Very quickly.

Q. Suppose you needed some of these supplies in a hurry, did you resort to a requisition then?

A. No, sir; by telephone, to be followed up by a requisition.

Q. You have had considerable experience in mines. You know the kind of fan you have at No. 8—the Capell fan?

A. No; that was at No. 6.

Q. The Lopley fan was at No. 8?

A. Yes.

Q. Is that considered a good fan?

A. It showed up in our test to be a very good fan.

Q. Is it not one of the best fans in the United States?

A. Yes, sir.

Q. How about the capacity? Is it one of the largest in capacity?

A. I don't know about that. It is among the largest.

Q. How long had it been in use?

A. About a year.

Q. Have you ever had any difficulty with it?

A. No, sir.

Q. Will you explain to the jury what system of ventilation you used?

A. It is the exhaust system.

Q. Who has charge of the fan at No. 6, or who had charge of it at the time of the explosion?

A. J. H. Leonard.

Q. He was on the day shift?

A. Yes.

Q. How long had he been in charge of the fan?

A. Ever since we started—six or seven years.

Q. Something has been said about the derailing switch. When was that put in?

A. Over a year ago.

Q. Who put it in?

A. Donlin's track man.

Q. Who was put in charge of the switch?

A. Mr. Leonard.

Q. How soon after it was put in was he informed that it was his duty to take care of it?

A. I think immediately.

Q. Did you give him instructions to take care of it?

A. Yes; I told him if a trip went in the mine and it was necessary for him to oil the fan for him to call a carpenter to attend the switch and not to leave it under any circumstances.

Q. You gave him instructions to take care of it himself or to get some one?

A. Yes.

Q. Had he frequently got some one to take his place?

A. Yes.

Q. When were these instructions given by you—after it was installed?

A. Yes.

Q. You know the kind of fan at No. 6 and the engine. Is it a self-oiling engine?

A. The engine has a self-oiling system, pipes and cups.

Q. So it ought not to require much attention?

A. No; one hundred and twelve revolutions was considered a slow speed engine and would not require much care.

Q. You say there is a record when stock is injured—that a report is made to you?

A. Not necessarily a written report. He comes in the office and reports it and we make a written report to the Fairmont Coal Company.

Q. He reports to you and you report to the office?

A. Yes.

Q. How about the stable boss?

A. He also does that. He makes a monthly report of the stock and reports the loss of any.

Q. This horse which was supposed to be burned a few days before this explosion—was any report made to you of that?

A. No sir; nothing of that kind happened. I heard that evidence yesterday. If

there had been an explosion sufficient to kill a horse there must have been a man with the horse to set the gas off and it would have killed him, too.

Q. When any person is killed or injured in the mine is any report made of that?

A. Yes; we have a regular form for accidents and death reports.

Q. Was any such accident as that reported a few days prior to this explosion?

A. No, sir.

Q. You are required to do that by law?

A. Yes, sir.

A recess was here taken till 1:30 p. m.

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#### AFTERNOON SESSION.

At 1:30 p. m. the examination of Mr. Ruckman was resumed as follows:

Q. How many mining machines had you in No. 6 mine at the time of the explosion?

A. Six in operation.

Q. How many motors?

A. We had three but one was idle.

Q. Were any of them gathering motors?

A. No, sir; all big ones.

Q. How many motors were there in No. 8 at the time of the explosion?

A. Six; one large motor and five gathering motors. Two of the gathering motors were out for repair that day.

Q. How many mining machines were in operation in No. 8 at the time of the explosion?

A. Seven.

Q. Prior to the explosion about how many men were employed at each of the mines, inside, including the mine foremen and pit bosses?

A. Including all I should estimate the number as near 185 to 190 in each mine.

Q. I suppose you cannot give us the number of working places in either of the mines just prior to the explosion, without reference to the maps?

A. No, sir.

Q. Please state how the powder is handled—where do the men get it?

A. We had a powder magazine at No. 8 and the men come in the order office and get what is called a powder order, and then go to the magazine and get their powder, and then it is taken over and the man's check is put on it—on the keg—and then that powder is issued to him in five-pound lots by the man in charge. That is the general practice in all of the mines.

Q. He gets the powder for working purposes in five-pound cans?

A. Yes, sir.

Q. You stated something this morning about having meetings of your mine foremen and pit bosses. How frequently did you hold these meetings?

A. Nearly every week. I never missed it unless absent or sick or something of that kind.

Q. What was the object of these meetings?

A. General discussion of the conditions both inside and outside the mine.

Q. The new mining laws took effect, I believe, about the first of June or July?

A. Yes, sir.

Q. Was there ever at your meetings at that time, or about that time, discussions of the changes made by the new mining laws?

A. Yes, sir; quite frequently.

Q. Who all attended these meetings? Were you there?

A. Yes, sir, and Donlin and McGraw, and sometimes No. 5 men.

Q. Did they have any meetings of the superintendents in the Fairmont office?

A. Yes, sir; these meetings were held monthly.

Q. And would all of the superintendents attend?

A. Yes, sir.

Q. Who conducted these meetings?

A. The general manager, Mr. Malone.

Q. What were the things generally discussed at these meetings?

A. A general discussion of the work and business conditions of the mines and what shape they were in.

Q. Was any reference made in these meetings as to the safety of the mines and their condition in that respect?

A. Yes, sir; I don't think there was a meeting ever held that that question was not brought up.

Q. Did Mr. Gaskill, general superintendent, hold any meetings?

A. Yes, sir; about once a month, of the pit bosses in conjunction with the others. We had the pit bosses and even fire bosses at these meetings.

Q. When was the last meeting held by Mr. Gaskill prior to the explosion?

A. Wednesday night before.

Q. Were the superintendents and mine foremen at that meeting?

A. Yes, sir.

Q. Were you present?

A. Yes, sir; and Mr. McGraw, Donlin and Level were present.

Q. There is some change made by the new mining law about driving cross-cuts?

A. Yes, sir; it shortens the distance twenty feet.

Q. Was that matter discussed in any way at any of your meetings?

A. Yes, sir; that was one of the first things taken up.

Q. Were instructions given by you to your mine foremen in regard to driving cross-cuts?

A. Yes, sir; the instructions were positive that they must be driven every eighty feet, and the question would sometimes come up that it was not just convenient at that time, etc., and I instructed them that brattices must be used until the cross-cuts got through.

Q. At these meetings was the general manager, Mr. Malone, present?

A. Yes, sir.

Q. Do you remember whether he asked the mine foremen whether they were complying with the provisions of the new mining law?

A. I think Mr. Gaskill asked that question of every mine foreman present, including Mr. McGraw and Donlin.

Q. I believe you say that copies of the new mining laws were furnished to the employees of these two mines, as well as other mines at Monongah?

A. Yes, sir.

Q. Who furnished these copies to the miners?

A. The mine foreman and took their receipts for them.

Q. Was there any record kept of that?

A. Yes, sir; the mine foreman kept the record.

Q. Do you remember of ever seeing the record in which this was kept?

A. Yes, sir; several times.

Q. Is this the book in which these records were kept as to the copy of the laws delivered to the miners?

[Book is here handed to witness.]

A. Yes, sir; and each miner was given a rule book printed in their own language. This is the book that was kept for No. 8.

Q. And the same kind of a record book was kept for No. 6?

A. Yes, sir.

Q. How about when a new man is employed?

A. When a new man is hired he is given a copy of the mining laws and rule book, and his receipt taken, and that record is kept in the office.

Q. You said this morning that the requisitions from your office on the company for supplies for the purpose of making the mine safe were promptly filled by the company?

A. Yes, sir.

Q. When your mine foreman or pit boss would make demands for supplies for the purpose of making the mine safe, were they always furnished promptly?

A. Yes sir; they were always furnished at once.

Q. At the time of this explosion had everything been furnished to the mine foremen and pit bosses that they had requested or desired for safety of the mines?

A. Yes, sir.

Q. Timbers, props, brattice cloth and everything like that—that they desired—were always furnished?

A. Yes, sir; everything they ordered.

Q. Why was the derailing switch put in No. 6?

A. To prevent trips from going back into the mine.

Q. How long had that been put in?

A. A little over a year.

Q. Had there been any such appliance in there previous to that time?

A. No, sir.

Q. That was put in as a means of safety to the mine?

A. Yes, sir; safety.

Q. Were any instructions given by the general manager or general superintendent, either at these meetings or by an order, as to the safety of the mines—as to carrying out the new laws, as far as safety was concerned?

A. That was brought up at every meeting, and I think a circular was sent out by the general superintendent.

Q. Calling the superintendents' notice to the new laws and directing them to comply with them and observe them?

A. Yes, sir.

Q. You say that had been discussed at the various superintendents' meetings?

A. Yes, sir; it had.

Q. And that was one of the reasons for Mr. Gaskill's remark at that meeting as to whether the mine foremen were carrying out the law?

A. Yes, sir.

Q. Were the mine rules posted at No. 6 and No. 8 mines as required by law?

A. Yes, sir; in seven different languages—framed and covered with glass to protect them from the weather.

Q. How large were they?

A. I suppose thirty inches long by a foot wide.

By Prosecuting Attorney Lowe: Q. You have told how the head-ways and entries were watered. Why were the working rooms not watered also?

A. It has never been customary.

Q. There was where most of the dust accumulated, was it not?

A. No; I don't think so. The air current would not be so heavy in the rooms like it would be in the headings.

Q. Could that be done practically?

A. The only practical way would be by water pipes and lines. It could not be done by a water car and sprinkler.

Q. Were there some abandoned workings in either of these mines?

A. Yes, sir; places standing there.

Q. What precaution was taken in regard to separating them from the other parts of the mine?

A. They were ventilated the same as the balance of the mine.

Q. The same means provided for ventilation in these parts as in the other parts?

A. Yes, sir.

Q. A section of the new mining law provides that the fire boss—after making examination of the mine and before each shift goes in—shall make a written record of the condition of the mine, etc., in a book. Was there such a record kept, do you know?

A. Yes, sir.

Q. Do you know whether that record of these two mines is now in existence?

A. No; I do not.

Q. You have stated about the number of men engaged in the inside work in the mines at the time of the explosion. Have you any way of knowing the definite number of men in the mine the morning of the explosion?

A. No, sir.

Q. I believe that the record that has been referred to shows that 353 bodies have been recovered from the mines. Do you know whether any more than that number were in there or not?

A. No, sir; I do not.

Q. The receipt books which you have referred to here were made sometime ago. I believe?

- A. Yes, sir.  
Q. As I understand, mines No. 6 and No. 8 were connected, were they not?  
A. Yes, sir.  
Q. At the place of the connection of the two mines was there a door?  
A. There was a door on one side and brattice on the air course.  
Q. Do you know which way that door swung—whether towards No. 6 or towards No. 8.  
A. No, sir; I do not.  
Q. These record books of the fire bosses—do you know whether they were ever in your office?  
A. No, sir; they were not. The fire bosses kept them locked up at the mines.
- 

Next came GEORGE SIMKO, who being first duly sworn, testified as follows:

### Testimony of George Simko.

The following questions and answers were asked and answered through William Vokolek, the interpreter heretofore sworn.

Examination by Mine Inspector Paul:

- Q. What is your occupation?  
A. I dig coal.  
Q. Where?  
A. No. 6 at Monongah.  
Q. When were you last in No. 6 mine?  
A. I was there on Wednesday and the mine didn't work on Thursday. I was not in on Friday.  
Q. Was that on Wednesday before the explosion?  
A. It was before the explosion.  
Q. In what part of the mine did you work?  
A. Second right, E face.  
Q. In what room?  
A. No. 8.  
Q. What was the condition of the mine on Wednesday with respect to ventilation?  
A. I worked in the mines for seventeen years and it was good air.  
Q. Was the place dry or wet?  
A. Dry.  
Q. Was there any gas?  
A. No.  
Q. With whom did you work?  
A. Mike Durkota.  
Q. Where is Mike now?  
A. He was killed.  
Q. Why were you not in the mine on Friday?  
A. I was sick and couldn't go.  
Q. Did you ever work in the mine at night?  
A. No.  
Q. Have you ever seen any men using the water car?  
A. Yes; I saw them. It was not necessary in my place; it was always wet at the heading.  
Q. Have you been in the mine since the explosion?  
A. No.  
Q. Do you know the cause of the explosion?  
A. Why could I know? I don't know. I am afraid myself.  
Q. Do you know of there having been an explosion in any part of the mine previous to this Friday?  
A. At no time. I can swear to that. I don't know.  
Q. Have you ever seen any evidence of gas in the mine?

- A. No. I work with a pick.  
Q. Do you use an open torch?  
A. It was an open torch; everybody had one.  
Q. Did you ever use a safety lamp?  
A. No; I never did.  
Q. Do you know what a safety lamp is?  
A. There are more wiser than I; I never did.  
Q. How long have you been mining coal?  
A. Eight years.  
Q. How long have you been in No. 6 mine?  
A. From May last.  
Q. How long have you worked in mines in West Virginia?  
A. Eight years.  
Q. Will you go back to work in No. 6 mine when the mine works?  
A. If I feel good I will go.  
Q. How often did the roadways get dusty in the mine and necessitate the use of water?  
A. I used to enter at No. 6 mine and the opening was always open and that was always wet, and I don't know when it was dry.
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Next came LUDWIG STREZELECKI, who being first duly sworn, testified as follows:

### Testimony of Ludwig Strezelecki.

The following questions and answers were asked and given through William Vokolek, the interpreter heretofore sworn:

Examination by Mine Inspector Paul:

- Q. Where do you live?  
A. Monongah.  
Q. How long have you lived there?  
A. Fifteen years.  
Q. What has been your occupation?  
A. Miner.  
Q. In what mine have you recently worked?  
A. No. 6.  
Q. When were you last in No. 6 mine?  
A. The fifth of December—before the explosion.  
Q. In what room or entry did you work in the mine?  
A. F face, first right, 15 room.  
Q. What kind of work were you doing in room 15?  
A. Taking out stumps—finishing the headings.  
Q. Did any person work with you?  
A. My brother-in-law.  
Q. Where is your brother-in-law now?  
A. He was killed.  
Q. How long have you worked on F face, first right entry?  
A. On the first left I worked for some time and when we finished that I went to first right.  
Q. How long have you worked there?  
A. About two years.  
Q. Have you ever noticed the presence of gas on the first right?  
A. So long as I worked on first right and left I saw no gas there.  
Q. Upon going to work would you find chalk marks on the coal facing, indicating that the fire boss had been in the place?  
A. I saw it every day.  
Q. Was the place where you worked wet or dry?  
A. Where I worked it was dry.



- Q. How did you get your coal down from the face or stump?  
A. I dug under with a pick and then I fired it.  
Q. What did you use for blasting?  
A. Powder.  
Q. How did you carry your powder into the mine and in what quantity?  
A. In a can. They never gave us more than five pounds.  
Q. Have you ever seen them using water cars watering the mine?  
A. When I worked at these two headings they sprinkled almost every day.  
Q. Did you think the mine was perfectly safe to work in?  
A. There was none better or safer than this one; there was a good stone and everybody knew it was the best mine.  
Q. Were you supplied with a sufficient number of props and timbers for making the roof safe?  
A. There was always plenty of posts; there was not very many needed.
- 

Next came ANDREW DARAN, who being first duly sworn, testified as follows:

### Testimony of Andrew Daran.

The following questions were asked and given through William Vokolek, the interpreter heretofore sworn:

Examination by Mine Inspector Paul:

- Q. How long have you been in America?  
A. Going on seven years, now.  
Q. Where do you work?  
A. No. 6, Monongah.  
Q. How long have you worked in No. 6 mine?  
A. Five and one half years.  
Q. In what parts of the mine have you worked?  
A. F face, fourth right, No. 12 and 13 rooms.  
Q. Who worked with you?  
A. I worked by myself—alone.  
Q. When were you last in No. 6 mine?  
A. The same day that the mine burned.  
Q. What time in the day did you come out of the mine?  
A. I don't know; I couldn't tell because I had no watch with me.  
Q. About what time did you enter the mine?  
A. About half past six.  
Q. How many cars did you load?  
A. None that day. I was somewhat sick and didn't work much.  
Q. About how many hours did you spend in the mine?  
A. I don't know for sure.  
Q. What was the condition of the mine, as to safety, according to your judgment?  
A. The mine was good; there was a little gas.  
Q. Did you see the presence of gas, and where?  
A. Sometimes in my room that would light from the hole where I bored.  
Q. How was the mine with reference to being dry or dusty?  
A. Dry; sometimes they sprinkled.  
Q. When was it last sprinkled to your own personal knowledge?  
A. I don't know exactly myself.  
Q. Did you ever see men putting water in the mine?  
A. Yes, sir; I did.  
Q. How recently before the explosion?  
A. I don't know.  
Q. Did you find, on going to work in the morning, check marks, indicating that the fire boss had been in the room?  
A. No, sir; but sometimes he did make marks there.

Q. Did you ever find an accumulation or quantity of gas in the rooms such as could be ignited?

A. Sometimes it was. It was some time ago. First I worked along a heading and there was more gas than there was in the room.

Q. How was the current, or ventilation?

A. It was good.

Q. Did the fire boss ever caution you about going into your working places on account of there being some gas present?

A. Yes.

By Mr. Alexander: Q. Did you find any gas in this room on the morning of the explosion when you were in there?

A. No.

Q. This hole you say you drilled in there and found some gas: Was that drilled the night before or the same day that you found the gas?

A. The hole was drilled the same day I found the gas.

Next came FRED VANDATTI who being first duly sworn testified as follows:

### Testimony of Fred Vandatti.

Examination by Mine Inspector Paul:

Q. What is your occupation?

A. Motorman.

Q. Where?

A. No. 8 mine at Monongah.

Q. How long have you been motorman at No. 8 mine?

A. Nine month.

Q. Which motor do you operate?

A. Gathering motor on four right, second north place.

Q. When did you last operate the motor in the mine?

A. Wednesday.

Q. The next working day before the explosion?

A. Yes, sir.

Q. From what points did you haul coal on the fourth right?

A. Up there to the second left.

Q. Who was your helper or trip rider?

A. His name was Reese; he was the last brakeman I had.

Q. Was he killed in the explosion?

A. Yes, sir.

Q. What did you do when you did not run a motor?

A. I was digging coal in four left. I was digging coal for a couple of weeks.

Q. What was the condition of the mine with respect to being dry and dusty?

A. The mine was damp and has water enough.

Q. Have you ever observed any gas in the mine?

A. Yes; just a very little.

Q. Where?

A. In the main heading.

Q. Near the face?

A. Yes; right up near the face of the coal.

Q. Have you ever seen any standing gas in the main heading, that, being lighted, would make a large flame?

A. I have put my light up to it and seen the small flame—just a little bit.

Q. Did you ever haul the water box for wetting the mine?

A. No, sir.

Q. Did you work day or night?

A. Day work.

Q. Have you ever had any information that the mine was dangerous from being dusty or from the presence of gas?

- A. No, sir.
- Q. What other mine or mines have you worked in besides No. 8?
- A. I have worked in No. 6?
- Q. About how many years have you been working in coal mines?
- A. For about eight years, I guess—seven or eight years.
- Q. Name some of the other mines.
- A. No. 5, No. 2 and I worked at No. 3.
- By Prosecuting Attorney Lowe: Q. Do you know whether they had any water cars in 6 and 8?
- A. Yes, sir; in No. 8.
- Q. Do you know how many times they were used?
- A. About a couple of times a week, or something like that.
- Q. Have you ever seen any pumps in the mines?
- A. Yes, sir.
- Q. Do you know where they are located?
- A. Between first and second right and one in the fifth right.
- Q. What are they used for?
- A. To draw the water out of the mine—to pump the water out of the mine.
- Q. Are there some parts of the mine that are wet naturally?
- A. Yes, sir.
- Q. And some parts of the mine naturally dry?
- A. Yes, sir.
- By Mr. Alexander: Q. Did you have any relatives in this explosion that were killed?
- A. Yes, sir; a father and a brother.
- Q. Was your brother younger or older than you?
- A. My father was thirty-eight and my brother was seventeen.
- 

Next came MARK CHINOR, who being first duly sworn, testified as follows:

### Testimony of Mark Chinor.

Examination by Mine Inspector Paul:

- Q. Where do you work?
- A. At No. 6, Monongah.
- Q. What kind of work do you do?
- A. Any kind of a job.
- Q. What was the last work you did at No. 6?
- A. I worked way down in the bottom.
- Q. Were you operating the machines?
- A. Yes, sir; cutting machine; shoot the coal down and load it up.
- Q. Who helped you in operating the machines?
- A. Byaggy.
- Q. Were you a regular miner or contract miner?
- A. A contract miner and contract just by myself; just had two places.
- Q. Did you have a horse that pulled your machines around?
- A. Yes, sir.
- Q. Where did you do your last work in the mines?
- A. Down in the bottom air-way.
- Q. Did you work in both ends of the air-way?
- A. Yes, sir.
- Q. How long have you worked in a mine?
- A. Five years and six months.
- Q. Did you work in any other parts of No. 6 mine?
- A. No.
- Q. Did you have any gas in the air-way you were working in?
- A. No.
- Q. Did you work in there at night or day time?

- A. In the day time.  
Q. Have you ever seen them use the water car?  
A. Yes.  
Q. When was the last time you know of the place having been watered?  
A. The 25th of November.  
Q. You say the place you worked was watered on the 25th of November?  
A. My place had lots of water.
- 

Next came LOUIS MUNZO, who being first duly sworn, testified as follows:

### Testimony of Louis Munzo.

Examination by Mine Inspector Paul:

- Q. Where do you live?  
A. Monongah.  
Q. What is your occupation?  
A. No. 8 mine.  
Q. What kind of work do you do?  
A. Digging coal.  
Q. How long have you been working in No. 8?  
A. A year.  
Q. What part of the mine did you work?  
A. Four left and first South and first North.  
Q. In passing to your work did you have to pass under an overcast?  
A. Yes, sir.  
Q. When you went in the mines did you turn to the right?  
A. Yes, sir.  
Q. You worked on the first and second North?  
A. First and second North and fourth left.  
Q. Is there a hole on the fourth left running to the outside?  
A. No.  
Q. What was your room number?  
A. No. 7.  
Q. When were you at work last?  
A. Two days before the explosion?  
Q. On Wednesday?  
A. Yes, sir; on Wednesday.  
Q. Who worked with you?  
A. Nobody.  
Q. Was your working place wet or dry?  
A. Dry.  
Q. Was the place ever made wet with a water car?  
A. Yes, sir.  
Q. When was it last watered?  
A. A couple of days before.  
Q. Did you ever find any gas up in your working place?  
A. No.  
Q. Have you seen indications of gas in any part of the mine?  
A. No; I never did.  
Q. Did you load after a machine?  
A. Pick work.  
Q. Did you undermine your coal?  
A. Yes.  
Q. Were you working at the face of the room?  
A. Yes, sir; at the face of the room.  
Q. Are you going back to work at No. 6?  
A. Yes.

Next came JAMES ROGERS, who being first duly sworn, testified as follows:

### Testimony of James Rogers.

Examination by Mine Inspector Paul:

- Q. Where do you live?  
A. At Monongah.  
Q. How long have you lived there?  
A. About sixteen years, altogether. I lived away about a year.  
Q. Are you employed at the mines at Monongah?  
A. Yes.  
Q. What is your occupation there?  
A. I was mine foreman for fourteen or fifteen years there.  
Q. At what mine or mines?  
A. I was at No. 3 then and I was assistant at No. 6.  
Q. You say your last work was assistant mine foreman at No. 6?  
A. Yes, sir.  
Q. How long did you act as assistant mine foreman at No. 6?  
A. A little over two years.  
Q. Who was your mine foreman?  
A. Tom Donlin.  
Q. When were you last in the mine previous to December 6th?  
A. Two days before the explosion I was at work.  
Q. Were you in the mine on December 6th—the day of the explosion?  
A. No, sir; not in No. 6?  
Q. Had you any reason for not being at work?  
A. I was not well.  
Q. How many years' experience in coal mining have you had?  
A. I have been working in coal mines for fifty years.  
Q. What other mines have you worked in besides Monongah mines?  
A. I worked in Newburg for six years and at Steubenville, Ohio, for fourteen or fifteen years.  
Q. Were your duties at No. 6 mine day work or night?  
A. Day work.  
Q. Did you have supervision over all the mines at which you worked, or a part of the mine?  
A. A part of the mine.  
Q. What part?  
A. F and H headings.  
Q. Did your duties require you to go to other parts of the mine besides F and H?  
A. No, sir.  
Q. What provisions had you in there for allaying the dust in the mine?  
A. Water.  
Q. You saw that done?  
A. Yes, sir; it was done by water cars.  
Q. Do you know when your part of the mine was watered last?  
A. Yes, sir; it was watered two or three days ahead of that, on my side.  
Q. Two or three days ahead of which?  
A. Ahead of the explosion.  
Q. All parts of your section?  
A. Yes, sir; it was all done in one day. It was not so big.  
Q. Did you carry an open or safety lamp in your work?  
A. Open work. Whenever I saw it necessary I took a safety lamp.  
Q. What parts of your section of the mine gave off gas?  
A. Sometimes we would catch just a little down in H, and other times you would not catch any.  
Q. Did you find any on any of the butt entries?  
A. Not often at all.  
Q. In any of the rooms off of the butt entries?

A. No, sir.

Q. Do you know if at any time the men in shooting down their coal ever had inflamed the dust by the shot being improperly placed?

A. The dust was not allowed to be there before firing the shot. It had to be filled up.

Q. Did you have any charge of the fire bosses?

A. I knew them all. They had to be there every morning.

Q. What time did you usually get into the mine every morning?

A. About half past six.

Q. On the first right off F face I noticed that a number of the pillars had been robbed out.

A. We started at No. 20 and came down to No. 15. We were finishing up No. 15 there.

Q. Do you know when the other part of No. 6 mine had been watered?

A. No; no more than the day before was a holiday and I met with Mr. Donlin and he said he was going to have it sprinkled that night. I met with him in the supply store.

Q. Were you in the mine after that—between that time and the time of the explosion?

A. No, sir.

Q. Then you don't know whether it was done or not?

A. No, sir; but I asked the fan man and he said they were down to do that work.

Q. About how often is it necessary to water the section of the mine that you had charge of?

A. Sometimes once a week and sometimes twice.

Q. Do you find that you have to water the mine more frequently during the winter months than during the summer months?

A. Yes, sir; it comes pretty near watering itself in the summer time.

Q. Was there any pump in your section of the mine?

A. No, sir; but we had lots of water which came from No. 8.

Q. Since you have been in No. 6 mine do you know of any men or animals being burned by the inflaming of the gas?

A. No, sir; not in my time.

Q. How are the stoppings built in the crosscut in the F face?

A. Regular inch lumber.

Q. In the F face?

A. Yes.

Q. How are they on the right of F—the butt entries?

A. Inch lumber.

Q. In the face entries?

A. The face of the H were concrete. They were not all in yet, but they were working at them.

Q. Did you use any canvas brattice to conduct the air to the faces where you say you found some gas?

A. Where necessary; yes. We never allowed any gas to stand there.

Q. Do you know if canvas was used at the face of H entry previous to the explosion?

A. No, sir; there was no canvas there. We struck a crosscut right at the face.

By District Inspector LaRue: Q. What is your opinion as to the general condition of the mine? Was it really a safe mine in your opinion?

A. I would like to own one like it. It was what I thought was a model mine.

Q. It was better, then, than the ordinary run of mines?

A. I think it was a better mine than I was ever in; that's what I thought about No. 6.

By Mine Inspector Paul: Q. What do you know as to the experience of the men?

A. Well, we had two or three different kinds of men. We had good, bad and middling.

Q. What was their nationality, principally?

A. Well, we had Greeks and Italians and Slavs and Poles and one or two Scotch.

Q. Any Americans?

A. There was an American or two and an Irishman or two. We had them from all parts of the globe.

Q. What method was practiced in instructing these men as to the dangers of their work—these foreigners?

A. We had to do the same routine today and tomorrow what we had done yesterday. We had to go and tell them tomorrow the same as we told them on yesterday morning. You could not tell them too often.

Q. Who employed the men in your section of the mine?

A. The superintendent gave them their work. They were all hired by the superintendent and he gave them to the mine foreman and if he needed them, he would hire them, and if he didn't need them he could tell them to go to the other place.

Q. Did the foreign element require greater attention than the Americans?

A. Yes, sir; you have to keep after it with them until they pay attention to you.

Q. What method would you pursue to communicate with the foreigners in regard to pointing out dangers?

A. Well, sometimes if they didn't know what I was saying I would take hold of them by the arm and make them understand it.

Q. Were any inexperienced men placed to work by themselves?

A. Yes; lots of them.

Q. Suppose you were to employ a man you were satisfied had had no mine experience, would you place him to work by himself or put him in the company of an experienced miner?

A. I always either got them in with some one or would not give them work. They generally came with their uncles or aunts or brothers.

Q. Were these foreign men given rules in their own language so they might read them?

A. I think every man of them had a copy of the rules in their own language.

Q. Have you been in the mine since the explosion—all over the mine?

A. Not just exactly all over it, but I have been in enough of it to satisfy me. I was not in every hole or corner but I have been pretty near it.

Q. In what way were you satisfied?

A. Satisfied that I had lots of work in it.

Q. Have you arrived at any conclusion as to the cause of the explosion?

A. No; I have seen smarter men than me go at that. I thought I would leave it up to them.

Next came P. J. M'GRAW, who being first duly sworn testified as follows:

### Testimony of P. J. M'Graw.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Monongah.

Q. How long have you live there?

A. About fifteen years, all but about seven months.

Q. What is your occupation?

A. Fire boss at No. 8 mine.

Q. How long have you been fire boss at No. 8 mine?

A. Five months.

Q. Where did you work previous to your work as fire boss?

A. No. 8 mine.

Q. What duties did you perform?

A. Worked on the wire.

Q. What other work have you done in the mine?

A. I have done everything.

Q. What other mines have you worked in?

A. No.'s 2, 5, 6 and 3.

- Q. When did you last work in No. 8 as fire boss?
- A. December 6th; I came off that morning at 6:30.
- Q. What time did you go on duty?
- A. At 6 o'clock the night of the 5th.
- Q. What part of the mine did you traverse during that time?
- A. I have been all over the straights, third North, second North and second south in the first part of the examination.
- Q. Did you make a second examination?
- A. I worked the whole second North face.
- Q. Were you on the third North that morning?
- A. No, sir; I was there that night.
- Q. Who was with you on your examination?
- A. Nobody.
- Q. You traveled the second North and butt entries?
- A. Yes, sir.
- Q. Were you at the face of the fourth left?
- A. Yes, sir; except the fourth left was full of water about twenty feet of the face and I couldn't get up.
- Q. Were all these entries working?
- A. Yes, sir.
- Q. What was the condition of the face of these entries on your inspection—were they cleaned up—the coal all loaded?
- A. I couldn't tell you about that; I noticed the third left heading being cleaned up.
- Q. At what points in the mine did you find the presence of gas on your examination, if any, that night?
- A. Nothing at all, at any place.
- Q. Did you find traces of gas anywhere?
- A. No, sir.
- Q. I have here a fire boss's record book. Will you examine it and state if that is the report you made on the morning of December 6th last?
- A. Yes, sir; it is.
- Q. Is this report correct to the best of your knowledge?
- A. Yes, sir.
- Q. In the performance of your duties have you noticed about the watering of the mine at any time?
- A. Yes, sir; I made it a point of looking after it.
- Q. Was there any watering being done in the mines at the time of this inspection or report?
- A. Yes, sir.
- Q. Did you see the man with the water car?
- A. Yes, sir; I saw him all the time while he was passing around through the mine.
- Q. I notice in your report, line 21, in answer to the question, "When were the dusty parts last made wet?" You say, "November 28th, 1907." What do you mean by that?
- A. What we mean by that is that we made a general wetting. We generally started over the straights and watered everything until we got to the second North face, and during that time—if there were any parts that got dry and needed a second watering—we went back and watered them. Some of the headings in the North didn't need water that often, and, when we completed the general watering, we dated it then.
- Q. When you found the presence of gas in any part of the mine what would be your method of procedure? Would you leave it there or would you endeavor to remove it?
- A. Leave it there.
- Q. Would you report the presence of gas to some person?
- A. There was never any quantity to be reported, but if we found out anything out of the ordinary, we would report it to the mine foreman. With small traces of gas it was not necessary.



Q. Had you a blackboard at the mouth of the mine on which you marked traces of gas?

A. Yes, sir; every trace.

Q. Did you ever find any gas?

A. Yes, sir.

Q. In what quantities?

A. Very small trace.

Q. In your last inspection did you notice the presence of a large powder can near one of the three North headings?

A. No, sir.

Q. Was it customary for men to bring their flasks out at night and take them back in in the morning?

A. If they needed any powder they did.

Q. Where did they usually keep their powder?

A. A majority of the men have tool boxes to keep powder in.

Q. Do you know anything of a horse having been badly burned in the mine three days prior to this explosion?

A. No, sir.

Q. Do you know of there having been a horse injured or killed in there three days prior to the explosion?

A. No, sir.

Q. What are your instructions in reference to reporting gas—as to the quantity? What would you call a trace of gas?

A. Anything. A cubic foot of gas we would call a trace. A smaller quantity of gas that didn't amount to anything was not reported. We were supposed to report anything as low as a cubic foot of gas.

Q. You would estimate the quantity?

A. Yes, sir.

By District Inspector LaRue: Q. You speak of watering the general headings and then going back at different times and re-watering the dry places. Did you water the air-courses parallel with these headings?

A. No, sir; we didn't have any track in it.

Q. You have no system of hose in that mine?

A. No, sir.

Q. The air-courses are not watered at all, then?

[Not answered.]

By Mr. Alexander: Q. When did you go to work in the mines?

A. When I was about eleven or twelve years old.

Q. How long have you been working all together in the mines?

A. About fifteen years.

Q. Have you worked all that time in the mines around Monongah?

A. Yes, sir.

Q. You say you have done about every thing connected with mine work.

A. There is no doubt about it; I have done everything.

Q. Were you fire boss anywhere before entering No. 8 mine?

A. No, sir.

Q. You have worked in No. 6?

A. Yes, sir.

Q. Where did you get your instructions to enable you to perform your duties as fire boss?

A. In what way do you mean?

Q. How did you learn to measure gas, etc.?

A. I had an education.

Q. What instructions have you had?

A. I had a course at the Scranton school. There is where I got my instructions outside of my practical experience.

Q. What time in the afternoon or day did you start in the mine for the purpose of making your examination as fire boss?

A. On the night shift?

Q. Yes.

- A. At 7 o'clock in the evening.
- Q. You went around all over your section?
- A. Yes, sir.
- Q. How many sections in No. 8 mine?
- A. Two.
- Q. Who was the other fire boss?
- A. Pat Kerns.
- Q. What time in the evening did he start?
- A. He started in the morning at 2 o'clock.
- Q. What time did you complete your work and come out?
- A. I was outside at 5:30. After making my reports, etc., it was about 6:30.
- Q. When did he come out?
- A. He came out about five minutes after I did.
- Q. Did you do that every day.
- A. Yes, sir.
- Q. Do you remember of seeing him before the explosion at any time—the morning of the explosion?
- A. I was talking to him before I left there.
- Q. After making your examination what did you do—what notice, if any, did you post on the outside?
- A. We wrote up on the blackboard. We dated it before we went in and any place we found gas we posted it there.
- Q. Is there a gate at the entrance of No. 8?
- A. Yes, sir; three gates.
- Q. In what condition are these gates—open or closed until after you make your examination?
- A. All locked.
- Q. Who unlocks them?
- A. The fire boss.
- Q. When did he unlock them?
- A. At 5:30, or what ever time we got through, if it was 7 or 8 o'clock.
- Q. Who posts up this notice on the blackboard—each of you?
- A. Yes, sir; each man makes his own report.
- Q. And the gates are not open until both of them come out and make their report?
- A. No, sir.
- Q. After that did either of your fire bosses go back in the mine?
- A. Yes, sir; the day man went back.
- Q. Was that Kerns?
- A. Yes, sir.
- Q. And state how long.
- A. Till 2 o'clock in the afternoon.
- Q. Was Kerns with you when you posted your notice and made your report and opened the gate that morning?
- A. No, sir; he came out after me. I opened the gate and came out and locked it again and posted my report. He opened the gate then and made his report.
- A. Did you know Mr. Kerns?
- A. Yes, sir.
- Q. How long had you known him at the time of the explosion?
- A. Ten or fifteen years, I suppose.
- Q. You both used one book in making up your reports as fire boss, did you?
- A. Yes, sir.
- Q. Are you familiar with his handwriting?
- A. Yes, sir.
- Q. Here is a report in this same book, signed by T. J. Kerns. Can you say if this is Mr. Kern's report and in his handwriting?
- A. It looks very much like it. Yes, sir; it is.
- Q. What mark or notice did you make on the working places in the mines as you passed through?

- A. The date of the month.
- Q. What did that mark indicate: that you had passed there and that the place was safe?
- A. Yes, sir; and if it was dangerous—if there was any trace of gas—I would block it up.
- Q. You say that in your rounds that morning you did not find any gas anywhere?
- A. No, sir.
- Q. There is a fan at No. 8 provided with an automatic record. Who takes off that record and who puts it on?
- A. The fire boss always did it, except when he was not there the fan man would do it. That only happened a couple of times.
- Q. You usually took off that record and put on a new one?
- A. Yes, sir.
- Q. Who took off that record on Thursday?
- [Record here handed to witness.]
- A. Alvy Yost.
- Q. The night fan man?
- A. Yes, sir.
- Q. Did you get that record afterwards?
- A. Yes, sir.
- Q. What did you do with it?
- A. I took it to Monongah and put it in Mr. Ruckman's room.
- Q. Look at this record [Here handed to witness] and tell the jury whether or not this is the record that was delivered to you by Mr. Yost?
- A. Yes, sir; this is the record.
- Q. On this record of December 5th, is this notation: "12—5—07, Monongah Mine No. 8." Who wrote that on there?
- A. I did.
- Q. Here is a record for December 4th, 1907, Monongah Mine No. 8. Who took that off of the fan?
- A. I did.
- Q. Did you make the notation on there?
- A. Yes, sir; before the chart was put on.
- Q. Here is one dated December 3, 1907, Monongah No. 8. Did you take that record off?
- A. I took this off but the writing is not in my handwriting.
- Q. When you took these records off you took them to the Monongah office?
- A. I put them in Mr. Ruckman's private office.
- Q. At the time you were through the mines, on this examination, did you find the air-currents all right?
- A. Yes, sir.
- Q. Were you in Wednesday night prior to the explosion?
- A. That morning we didn't make any examination. The other fire pit boss didn't come until 7 o'clock. The morning of the 5th I went to all the straight headings and second South myself. I didn't go through my territory that morning because nobody was going to work.
- Q. What do you know about the gates at No. 8? Were they closed on Thursday?
- A. Yes, sir; when I left there they were. Several persons came to work and I told them that they could not go in—that no examination had been made. Those were my instructions—that they were not going to work.
- Q. Were any parts of your section of No. 8 not working regularly?
- A. Rooms, you mean?
- Q. Yes.
- A. Yes.
- Q. Were there any headings or parts of headings that were not working regularly?
- A. Yes.
- Q. How frequently did you visit these sections?

A. About twice a week.

Q. When did you visit any of these places prior to the explosion?

A. I visited part of them on the Friday before.

Q. After making the examination of your section in No. 8, on the morning of the explosion, did you think it safe?

A. I surely did or I would not have unlocked the gates.

Q. What instructions, if any, did you have regarding looking out for the safety of the men or miners working in the mine?

A. If anything was the matter we had instructions to take all the men in the mine, if we needed them, to fix anything.

Q. In this last report you made you say the mine was watered on November 28th. What do you mean by that?—that that was the last watering that was done in that mine, or that on that date they completed watering the whole mine?

A. The complete watering of the whole mine.

Q. Had there been any watering of your section of the mine after November 28th and up to the date of the explosion?

A. Yes, sir; every night.

Q. While you were making your round as fire boss did you ever come in contact with the people watering the mine?

A. Yes, sir.

Q. Where did the miners in the mine keep their powder that they had down in the mine?

A. A majority of them kept their powder in a powder house we had down there for that; some of them took it home and some of them had boxes they kept it in.

Q. Now, in regard to these flasks, or cans, in which they took their powder in the mines: Where did they get that powder?

A. A majority of them filled them on the outside of the mines.

Q. Isn't it a fact that the men sometimes took these 24-lb. cans in the mines with them for the purpose of carrying tamping and bits for machinery, etc.?

A. They hardly ever used them for carrying bits, as they had sacks for carrying them in, but they sometimes used them in there to carry water and tamping in, etc.

Q. You say you don't know anything about a horse being burned in there by an explosion of gas a few days before this explosion?

A. No, sir; I do not.

Q. What do you know about the rules in regard to reporting any accident like that?

A. I am supposed to report to the mine foreman, if I know anything about it, and he is supposed to report to the superintendent.

Q. You didn't hear of any explosion or accident such as that?

A. No, sir; there was none or I would have heard it.

Q. Do you remember of a horse being burned in there about the head, some months before that?

A. Yes, sir.

Q. It was not killed?

A. No, sir; it was killed in this last explosion.

Q. How long did it take you to make the rounds of your section from the time you started until you got back?

A. About four hours.

Q. This pressure gauge record for No. 8 Monongah of December 6, 1907, did you put that on?

A. I wrote the memorandum on it but didn't put it on; I dated it.

Q. You didn't take it off, I understand?

A. No, sir; I did not.

Q. What became, if you know, of the blackboard on which you made your notations after coming out of the mine?

A. I have not seen it since.

Q. You presume, therefore, that it was destroyed?

A. Yes, sir.

By Prosecuting Attorney Lowe: Q. I will ask you to state, after refreshing your mind from this record, how often the mine was watered in this general way between September 18th and November 28th?

A. The mine was continually being watered every night.

Q. You have stated that occasionally it was given a thorough wetting and the dates are mentioned in answer to the inquiry as to when the dusty parts were last made wet. Can you give the dates on which these dusty parts were made wet?

A. I can't give you certain dates. We started out on one heading and we continued to wet that, but, if there were any parts that got dry, we would go back sometimes two or three times and water them. When we completed the wetting we would then date it on the report. Sometimes we would have to go back and wet a part two or three times.

Q. In the beginning of this record you start out by saying that the dusty parts were last made wet September 18th. It runs on that same date up until October 18th, when you state that the dusty parts were last made wet.

A. That is when we completed it. During that time we were always sprinkling some place.

Q. On all of the dates between these dates you were sprinkling some parts of the mine?

A. Yes, sir.

Q. Then beginning with October 18th you completed that general wetting on November 12th, as shown by the record. Is that correct?

A. Yes, sir.

Q. Beginning at that time, then, you completed it again on November 28th. Is that correct?

A. Yes, sir.

Q. And you had not completed the general wetting of the mine up until the time the explosion occurred?

A. No, sir.

[Fire boss's record of December 6th, 1907, at this point was read to the jury by the Prosecuting Attorney, as follows:]

#### DO NOT TAKE THIS BOOK INTO THE MINE.

*Use Indelible Pencil.*

N. B.—*The Fire Boss Will Sign Each Report When Made.*

#### FIRE BOSS'S RECORD BOOK.

*Name of the Mine* MONONGAHI No. 6, . . . . . *Name of Operating Company.*

FAIRMONT COAL CO.

*Post Office* MONONGAHI. *County of* MARION, WEST VIRGINIA.

1. Date Dec. 5 1907. What hour did you enter the mine A. M. 5.30 P. M.
2. Was the fan running when you entered? Yes. Did you date the sign bulletin board before entering? Yes.
3. What hour did you come out of the mine? 5 A. M. 12—6—07.
4. What sections of the mine did you visit and examine? Sec. No. 1.
5. What sections of the mine did you not visit? No. 2 and No. 3.
6. What did you write or display upon bulletin board upon coming out of mine?  
Gas reports for Section No. 1, No. 2 and No. 3.
7. Did you detect any gas and where? Yes, room No. 22, 4 left E. Face.  
Slight gas traces.
8. Did you brush out or remove any gas, and where? No.
9. Did you visit all places in the district consigned you? Yes.
10. Did you find any doors standing open, and where? No.

11. How many places did you examine and mark safe? 83.
12. How many places did you mark dangerous and where? None.
13. Did you find any cross-cuts needing stopping, and where? No.
14. Where is brattice needed in the mine? None.
15. Is brattice conducted to face of all gaseous places? No.
16. State condition of doors, stoppings and airways. Good.
17. State where you found any unsafe roof where men travel or work. No.
18. Did you examine any part of abandoned works, and did you find any standing gas, and where? No.
19. Did you personally notify any employes of any danger and where was the danger? No.
20. What parts of the mine are dusty? None.
21. When were the dusty parts last made wet? When needed.
22. What duties will you perform for the next 7 hours after examining the mine and making this report? Looked after general conditions of mine.

Signed this 6th day of Dec. 1907.

L. EMMETT TRADER,  
Fire Boss.

Q. In these investigations you made every night, what did you observe in regard to the accumulated dust?

A. I never noticed any in particular. I always took particular notice that there was nothing out of the ordinary.

Q. What was the condition in the rooms, where the mining of the coal was done, in regard to dust?

A. Good.

Q. How was the dust produced by this mining removed?

A. Loaded up.

Q. When?

A. As soon as the places were cut.

Q. Before any shooting was done in the room?

A. Yes, sir.

Q. Who did that work?

A. The men that worked in the places.

Q. Do you know whether there had been any considerable quantity of dust removed from No. 8 mine shortly prior to the explosion?

A. Where do you mean from?

Q. Any parts of the mine.

A. I know two or three weeks before the explosion they cleaned up second North face and every night one or two men worked in clearing up the tracks from the dust coal that had fallen from the cars, etc.

Q. There would be, naturally, considerable of this dust sifted through these cars and knocked off in hauling the coal?

A. Yes.

Q. And you saw men working cleaning that up during your visits through the mine?

A. Yes, sir; every night.

By Coroner Amos: Q. Were you familiar with the connection between mines No. 6 and No. 8?

A. One side I always took particular notice to, where the door was.

Q. Which way did that door swing?

A. Towards No. 8.

Q. Have you seen it since the explosion?

A. I haven't seen anything of it.

Q. You don't know which way it opened that morning?

A. No.

By Mine Inspector Paul: Q. Do you know if the post which supported the door still remains in the entry?

A. No, sir; it is not.

Q. Do you remember of having indicated to me a post you claimed supported one side of the door indicated?

A. I took you down there and showed you where the door was.

Q. There still remains a post with eye bolts in it. Do you recollect seeing that post?

A. I don't mind seeing that post. I think there is a 5x7 that had a chain and lock on it, that had a door on it that swung to the other side.

By District Inspector LaRue: Q. What kind of stoppings were in the other connections?

A. They were supposed to be brick. They were put there before I went to No. 8.

Q. That door opened into No. 8 from No. 6?

A. Yes, sir.

By Mr. Alexander: Q. The book you have referred to as containing your and Mr. Kern's reports is provided by the State and these are the reports that you are required by the State to make?

A. Yes, sir.

Q. Did you make any other report of a similar nature to the Fairmont Coal Company?

A. Yes, sir.

Q. Is that it for the week ending December 8th, 1907?

[Paper here handed to witness.]

A. Yes, sir.

Q. The signature "P. J. McGraw," then, on these pages, is your signature?

A. Yes, sir.

Q. What becomes of this report after you make it out?

A. The mine foreman takes charge of it when filled out and then I think he takes it to the Monongah office and from there it goes to the Fairmont office.

Q. Do you know what the purpose of this report is?

A. To have it in case of any dispute or accident and to give information as to the condition of the mine.

Next came L. E. TRADER, who being first duly sworn, testified as follows:

### Testimony of L. E. Trader.

Examination by Mine Inspector Paul:

Q. What is your occupation?

A. Fire boss.

Q. Where?

A. No. 6 mine.

Q. How long have you been fire boss there?

A. A little over a year.

Q. What kind of work have you done in mines?

A. Assistant to the fire bosses, sprinkled tracks, run the pumps and various other odd jobs.

Q. How many years have you spent in the mines?

A. Going on four years.

Q. When did you last make an inspection of No. 6 mine?

A. On the morning of the explosion.

Q. What time did you enter the mine and make that examination?

A. Between 5 and 6 o'clock the night before.

Q. What time did you come out?

A. About 5 o'clock that morning.

Q. Did you write anything on the blackboard on coming out of the mine?

A. I wrote the gas reports for the other two fire bosses and myself and reported the derangement of the wires for the benefit of the pit boss.

Q. Examine this photograph and state if it is a copy of the blackboard at No. 6 mine?

[Photograph here handed to witness.]

A. Yes, sir; it is.

Q. Can you read what is on there now?

Witness reads as follows:

Dec. 6, 1907.

H Face Air	)	
G Face Heading No. 1	)	Gas Traces.
No. 22 room 4th Left E	)	
Wire down between		
2nd and 3rd Right F Face		

Sec. 1 L. E. TRADER

Sec. 2 A. H. MORRIS

Sec. 3 TIM LYDEN

Q. Who are these men whose names you have mentioned?

A. The other two fire bosses and myself.

Q. Are these two fire bosses dead?

A. Both of them.

Q. What section of the mine did you make an examination of yourself?

A. We changed around every week. We advanced one section, or rather went back—that is, one week on No. 3, next week No. 2 and the next week No. 1.

Q. The other fire bosses alternated the same as you?

A. Just the same.

Q. Will you examine this fire boss's record and state if that is your report?

A. That is my report.

Q. For the night of December 5th?

A. Yes, sir.

Q. Will you please read that report?

[Witness reads the report as follows:]

DO NOT TAKE THIS BOOK INTO THE MINE.

*Use Indelible Pencil.*

N. B.—*The Fire Boss Will Sign Each Report When Made.*

#### FIRE BOSS'S RECORD BOOK.

Name of the Mine MONONGAH No. 8. . . . Name of Operating Company,

Post Office MONONGAH, County of MARION, WEST VIRGINIA.

FAIRMONT COAL CO.

1. Date Dec. 6, 1907. What hour did you enter the mine? 2:30 A. M.
2. Was the fan running when you entered? Yes. Did you date the sign bulletin board before entering? Yes.
3. What hour did you come out of the mine? 5:30 A. M.
4. What sections of the mine did you visit and examine? Section No. 1 including No. 2 North face.
5. What sections of the mine did you not visit? No. 1, No. 2 and No. 3, No. 4 right North face.
6. What did you write or display on bulletin board upon coming out of mine? The names and numbers of places I found gas.
7. Did you detect any gas and where? No.
8. Did you brush out or remove any gas and where? No.
9. Did you visit all places in the district assigned you? Yes.
10. Did you find any doors standing open, and where? None.
11. How many places did you examine and mark safe? 100.
12. How many places did you mark dangerous, and where? None.
13. Did you find any crosscuts needing stoppings, and where? Nine.
14. Where is brattice needed in the mine? No. 1 left, No. 2 North face.
15. Is brattice conducted to the face of all gaseous places? Yes.
16. State condition of doors, stoppings and airways. Good.
17. State where you found any unsafe roof where men travel or work? None.



18. Did you examine any parts of abandoned works, and did you find any standing gas, and where? Yes and found no gas.
19. Did you personally notify any employes of any danger, and where was the danger? None.
20. What parts of the mine are dusty? None.
21. When were the dusty parts last made wet? Nov. 28, 1907.
22. What duties will you perform during the next 7 hours after examining the mine and making this report? Looking after the general safety of the mine.
- Signed this 6th day of Dec. 1907. P. J. MCGRAW,  
Fire Boss.

Q. In line 21, in answer to the question, "When were the dusty places last made wet?" you reply, "When needed." Can you give us any further information in regard to when that section of the mine was watered?

A. To the best of my knowledge that section of the mine was watered on the night of the 4th. On my rounds on the night of the 4th, while going down in there, I met the motorman and an Italian that was driving a mule and they were working at that time on that section.

Q. Do you know the names of these parties?

A. Fred Cooper was the motorman and the Italian, I don't know his name. He is still living, I understand.

Q. Were you in the mine several weeks previous to the explosion when four empty cars ran away on the slope?

A. Yes, sir.

Q. Whereabouts in the mine were you?

A. At the pump house in the third left, room No. 1 E face.

Q. Is that an electric pump?

A. Yes, sir.

Q. Did you examine the trip?

A. I was there when they took it out.

Q. What damage did it do to the wires?

A. It had torn them in two was all. After they were torn in two that was all that could be done to them right there.

Q. Do you know who was at the bottom of the slope at the time the cars came down?

A. No; I do not.

The examination was at this point adjourned until tomorrow morning.

#### MORNING SESSION, JANUARY 8, 1908.

The examination of L. E. TRADER was resumed.

By Mine Inspector Paul: Q. What district of No. 6 mine did your examination cover on the night of the 5th and the morning of the 6th?

A. On the night of the 5th I visited all parts of the mine where we had been accustomed to find gas, and some places where it was possible that we would find a quantity. In the morning I visited section No. 1.

Q. What constitutes section No. 1—what heading?

A. Second and third right on E face, and one, two, four, five and six lefts on E face.

Q. Did you make an examination of the workings as far as you could?

A. Yes; clear to the face.

Q. How did you ascertain but what there might be gas above—six or eight feet above?

A. By placing my lamp on a pick, or, if there was anything to get up on, I would get up on it.

Q. Do you know if the worked out portions were indicating the presence of explosive gas at any time?

- A. No, they were not.
- Q. I notice you omit the third left. Why is that not in your list?
- A. That was section No. 3, or would have been. It had not been assigned to any particular district. It had not been working; it just started to work that morning.
- Q. When did you last make an examination of the butt entries off D face?
- A. That was the week before; I was in that section the week before.
- Q. Has the third right off E face entry a track in it, or had the track been removed?
- A. What was the old third right had no track.
- Q. What was the condition of those butt entries off D face in respect to the presence of dust?
- A. They were all wet.
- Q. Were they wet naturally or by putting water on them?
- A. Naturally, and by the water, too. The rooms were wet naturally and the headings—where the horses and men traveled—were wet with the cars.
- Q. Do you know if there was a pump or drainage on third right off E?
- A. There was no pump, but there was drainage.
- Q. Did you ever make an examination of the A face entries?
- A. There were no entries on A face outside the air-course.
- Q. Was the A face entry going to the rise or to the dip?
- A. I could not state. All of the entries to the right of the mine have been going to the dip.
- Q. In any of your examinations have you ever found any bodies of standing gas in any part of the mine?
- A. Nothing only a fresh accumulation.
- Q. In what part of the mine was brattice cloth used for forcing the air into the working places prior to the explosion?
- A. Any place we thought gas was likely to accumulate.
- Q. Can you name some place where you observed brattice cloth being used?
- A. In an air-course running parallel to H face, between second and third left, on the left hand side.
- Q. Any other place?
- A. That was the only canvas at the time of the explosion for brattice purposes.
- Q. Have you had occasion to go to a point on the F face connecting with No. 8 mine?
- A. Yes.
- Q. There are three entries there connecting?
- A. Yes.
- Q. Do these three entries run parallel with the river?
- A. Not quite.
- Q. Approximately so?
- A. Yes.
- Q. In the one farthest from the river what kind of a stopping was used?
- A. A wooden stopping placed close to the fourth right on F face.
- Q. How far beyond fourth right?
- A. Fifteen feet.
- Q. What character of stopping was in the middle entry?
- A. I never saw it. I only know what I have been told.
- Q. What was the nature of the partition next to the river between the two mines?
- A. A wooden door.
- Q. Which way did the door open?
- A. Toward No. 6.
- Q. In going from No. 6 to No. 8 mine on which side of the entry were the hinges?
- A. On the left hand side.
- Q. Was that door fastened or locked in any way?
- A. It was locked with a chain—locked on No. 8 side and on our side. The chain passed through a hole about a foot from the edge of the door—two feet long.

Q. With that chain removed and the door remaining closed which way did the current of air tend to open the door?

A. Toward No. 6.

Q. Have you been to that point since the explosion?

A. No; no further than the fourth right.

Q. Did you ever go through the connecting door?

A. Yes; I have been through it.

Q. Was there a gate of any kind across the entry on either side of the door?

A. Not since the door was put up. There was, before the door was put up, a pair of double iron gates.

Q. Was it an open gate?

A. Yes.

Q. You made mention of the third left off of E face not having been worked, but that on the morning of the explosion men started to work there?

A. Yes.

Q. Was that third left examined previously?

A. We didn't know that man was to start to work there. We had not been notified of that.

Q. When did you last make an examination of the third left of E face prior to the explosion?

A. The Sunday before, I think. The pit boss and I went through together and I climbed through it nearly every night myself, but not through the rooms.

Q. Do you know how long the rooms in that entry had been idle?

A. No; I couldn't say definitely.

Q. Approximately?

A. Quite a while.

Q. Was the Sunday you speak of the only time you have made an examination of that heading since you had been temporarily suspended?

A. No; they were examined by the other fire boss or myself or the pit boss every few days.

Q. Did you ever find any indications of gas in the rooms in this entry?

A. No; none whatever. That heading had been remarkably free from gas ever since they started to work.

Q. On the third right off E face, have you ever found any gas in the rooms in recent inspections?

A. Yes; in No. 8 room only.

Q. To what extent?

A. Just a trace—so small you couldn't find it twice in the same place.

Q. How do you explain that?

A. From the fact that the lamps created draft enough to mix the little gas there was with the air and burned part of it.

Q. Outside of the practical knowledge have you had any theoretical training in your work?

A. Yes.

Q. Of what nature?

A. I studied gasses in the laboratory of the high school at McKeesport, and in the Scranton Correspondence School.

Q. Have you worked in any other mines where gas has been known?

A. No.

By Prosecuting Attorney Lowe: Q. In the abandoned workings the mine was not examined by the fire boss as often as those that were being worked?

A. Yes; that is, so far as the headings or sections of the mine that were shut down were concerned. Rooms in headings where the men worked that had been examined were examined the same as the working places.

Q. About what portion of mine No. 6 was covered by these abandoned workings?

A. I couldn't estimate that without the map.

Q. How often was the abandoned portion inspected?

A. Weekly.

By Mr. Alexander: Q. In your report made on December 6th you say you found

some slight gas traces in room 22, fourth left E face. What do you mean by "slight gas traces?"

A. In reporting the gas, anything that we couldn't report in volume, like it was a cubic foot or over, it was reported as a trace of gas.

Q. A trace is such a small quantity you can't measure it?

A. We couldn't attempt to measure it.

Q. Is that quantity dangerous?

A. No.

Q. There were three fire bosses at No. 6—yourself, Morris and Lyden?

A. Yes.

Q. Morris and Lyden were killed?

A. Yes.

Q. Who went on duty first?

A. I did.

Q. What time in the day?

A. I reported at 5 or 5:30 in the evening.

Q. Who was next?

A. The other two came in together and reported at 1 o'clock and started in about half past one.

Q. Did you see either of them during the morning of the 6th, from the time they came in until you reported?

A. Yes I saw both; I saw one before the examination and both afterward.

Q. You make your reports in the same book?

A. Yes.

Q. That is the book provided by the State, and the book you are required to keep up by the State?

A. Yes.

Q. Are you familiar with the handwriting of Morris and Lyden?

A. Yes, sir.

Q. Here is a report dated December 4th, signed by Tim Lyden of Monongah No. 6. Tell the jury whether that was Lyden's report.

A. It is.

Q. Here is one signed by A. H. Morris, December 4th. Is that his report?

A. It is.

Q. Look at that book in a number of places where these reports are signed by Mr. Lyden and Mr. Morris and say whether this is the record kept by them as fire bosses as well as yourself in Monongah Mine No. 6?

A. That is our record.

Q. Did you, as fire boss, make any report to the Fairmont Coal Company?

A. Yes.

Q. What was the nature of the report you made to the Fairmont Coal Company and how often was it made?

A. It was made daily, at the same time the State report was made.

Q. I wish you would look at these and see if these are the reports that were made to the Fairmont Coal Company at No. 6?

A. Yes.

Q. When you made these reports what did you do with them?

A. Turned them over to the mine foreman.

Q. And what did he do with them.

A. He delivered them to the superintendent, Mr. Ruckman.

Q. There is a fan at No. 6 mine. Who keeps the pressure gauge records? Who takes them off?

A. The night fan man takes them off and puts them in a drawer in the fire boss's office and then the fire boss, Mr. Morris, delivers them to Mr. Ruckman.

Q. Did Mr. Morris take them all—all the time?

A. Yes; he had to pass the office on his way home.

Q. You never handled the reports?

A. I never had anything to do with them.

Q. I understand these fire bosses alternate?

A. Yes.

Q. You go in in the evening one week and get off early the next morning and next week another man comes on at that time and you work during the day?

A. We change weekly. There are only two of us alternating that way—Mr. Morris and I.

Q. How long did Mr. Lyden stay in in the morning? He came on at one and when did he quit?

A. He staid until 1 o'clock that afternoon—one to half past one.

Q. Did you notice any watering in the mine?

A. Yes; I watered myself considerably.

Q. There were three watering cars?

A. Yes.

Q. The large one was run by a motor?

A. Yes, and by a mule both; they all worked that way.

Q. These cars were in operation every night?

A. Not every night.

Q. How often?

A. I would say twice a week.

Q. What was done with the coal that was dropped along the haulway?

A. It was loaded.

Q. How often?

A. When there was sufficient to pay a man to load it.

Q. Did they keep a man there to load up the coal dropped along the haulway or to pile it up in piles?

A. Yes; Mr. McDenna.

Q. He worked there all the time loading up coal?

A. Yes.

Q. Is he living?

A. No.

Q. Killed in the explosion?

A. Yes.

Q. Who else gathered up coal?

A. We had a man working at night, steady, and some of the men had worked in the day time—some of the motormen, brakemen, or something like that. They had checks on the company and they would load several cars at night after the work was done. We had one man loading all the time. He is alive.

Q. Who?

A. Tony Fushari, as near as I could find out his name this morning.

Q. Mr. Donlin was mine foreman and pit boss?

A. Yes.

Q. When a man was put to work in a part of the mine that had not been worked recently, was it not the rule for the mine foreman to go with him and show him his place?

A. Yes.

Q. The mine foreman carried a safety lamp?

A. Yes.

Q. And he could tell in going into a new place whether there was any gas or not?

A. Yes; if he didn't do it he sent a fire boss ahead with a safety lamp, and he would come back and report the conditions before he went in the mine with the man.

Q. What time in the morning did the men go to work at No. 6?

A. Between half past five and seven o'clock.

Q. What fire boss was around there during that time?

A. There was none at the pit mouth. They were around in the mine inside where they could watch the men as they came in.

Q. What kind of powder was used at No. 6?

A. I don't know the grade—just ordinary black powder.

Q. Has the company a magazine there?

A. Yes, across the river.

Q. How is the powder handled?

A. In 5-lb. canisters.

Q. How do the men get the powder?

A. At different stores; nearly all the stores handle powder; some of them nearly as much as the company.

A. The company has a magazine of their own though?

A. Yes.

Q. When a man bought powder from the company there was a canister set aside to him in the magazine?

A. I don't know about that.

Q. You were around where you could watch the men coming in?

A. Yes.

Q. What was the object in that?

A. To watch the powder, and know who all were in, and get a general idea of how many men we had for the purpose of planning the day's work.

Q. Did you seek to prevent them from carrying in more powder than is provided by law?

A. Yes.

Q. And they bought it in five-pound kegs?

A. Yes.

Q. Some of the men had tool boxes, didn't they?

A. Yes.

Q. Did you make an examination of these boxes to see how much powder they had?

A. Yes, I spent about half of my time going through the tool boxes in search of oil or powder.

By Prosecuting Attorney Lowe: Q. Did you ever find more than five pounds any time?

A. Yes, more than five pounds, but not more than that in one can. They were permitted to bring in more than five pounds, but not more than that in one can.

Q. Do you know of them keeping more on hand than is necessary for one shift?

A. No.

Q. You spoke of having at least one man gathering up coal all the time. Did you have some one working at the dust all the time?

A. The dust and coal went together.

Q. About how often was the dust along these haulways taken up?

A. Some places it would be oftener than others. In some places where a loaded trip was stopped for some reason the motor in starting would jerk some coal off the top and that would have to be loaded probably once a week, where others would not need to be loaded so often.

Q. Was it the quantity of coal that was looked after or the dust?

A. Both.

Q. Those places where the motor jerked the coal off the car were the places most cleaned up?

A. Yes, and at the same time the most dusty places.

Q. There would be considerable dust sifting out of the cars all along the haulway?

A. Yes.

Q. At these other places besides where the cars were stopped, how often were they cleaned up?

A. I would be safe in saying they were shoveled up once a month and kept down in the meantime.

Q. How long before the explosion had that been cleaned up in No. 6?

A. That had just been cleaned up. The man had cleaned from the bottom of the slope to E face and down E face to the end of the heading.

Q. Who did this?

A. Tony Fushari.

Q. Just the one man?

A. Yes; but in the meantime there had been coal loaded by these other men. Tony loaded the dust, unless it was in between places and men with the company's checks, who worked over time, loaded the coal.

- Q. How long did it take Tony to do that?
- A. Two weeks.
- Q. Then the place he started from, there was two week's accumulation of dust?
- A. No; not more than one day's dust. From where he started that had all been loaded since he started.
- Q. Who loaded it?
- A. Fred Cooper.
- Q. Immediately after the explosion there was considerable dust along the haulway?
- A. Yes.
- Q. Had that been put there by the explosion or had it accumulated before?
- A. It had been made by the explosion, in my estimation, and deposited there.
- Q. The dust was nearly to the tops of the rails in some places?
- A. Yes, and over the rails in places. There was dust in places there had never been dust before.
- Q. Where had all that dust come from?
- A. From the great force ramming the coal against the ribs.
- Q. Was it your opinion that that dust was created by the explosion?
- A. A good deal of it was. Possibly some of it had been there.
- Q. Might it not have come from other parts of the mine, brought there by the explosion?
- A. I don't think so; I don't like to say for sure.
- Q. Do you think it would be possible for that explosion to create the coal dust? Would it not have the effect of driving it away?
- A. No; I think it would create it.
- Q. There was no provision made for water in the rooms, I believe—just the heading and haulways?
- A. Yes.
- Q. For the rooms there was no equipment?
- A. No.
- Q. How were the rooms cleaned?
- A. I never saw a sufficient quantity of dust to consider them as needing cleaning. They were generally cleaned up pretty well by the digger.
- Q. Would that be possible without using water?
- A. Yes.
- Q. Just with a shovel?
- A. Yes.
- Q. Where is most of the dust created—in the undermining of the coal?
- A. There is a difference of opinion on that. For my part I don't think there is near the dust comes from undermining that other people think. The machine with sharp bits don't make near the dust they claim it does. It comes out in small pieces about half the size of a pea from a machine with good bits.
- Q. Where does all the dust come from in No. 6?
- A. From being ground under the horses' feet, and the miners' feet, and tramped along the heading.
- Q. What creates the dust, if the mining machine does not?
- A. As I said, it comes from the horses tramping on the coal. The dustiest sections of the mine are away off from where there is any mining done.
- Q. That could be accounted for by reason of the ventilation carrying it there?
- A. No; the current is not strong enough to lift the dust.
- Q. Do you think the coal dust found in mines of the character of No. 6 is not produced by the machines, but by the men and horses tramping around?
- A. Yes, and the cars. The jerking of the cars, no doubt, grinds the coal together considerably; and of course some of it comes from the machines.
- Q. A great deal more comes from machine than from pick work?
- A. Yes.
- Q. The pick work takes it out in the shape of slack?
- A. Yes; but when the slack from machine work and pick work is shoveled up, it will leave as much dust on the floor.

Q. I understand a part of the time you were on duty up until 1 o'clock in the day time?

A. Yes.

Q. And part of the time you left at 6 in the morning?

A. Between 5 and 5:30.

Q. When you staid there until 1 o'clock in the day time were you in a position to see where the miners were mining coal?

A. Yes.

Q. Do you know of any of them failing to take out the dust before firing shots?

A. No.

Q. That was always done?

A. Yes; that was to the digger's interest. If he shot the coal down on the dust pile he had that dust to contend with throughout the loading of the whole thirteen cars. If he loaded up the dust in the first place, he would only have to contend with it on one car. They were as anxious to load it first as we were to have it loaded.

Q. You think it was not simply shoved back against the side and left there until they saw fit to remove it?

A. No.

By Mine Inspector Paul: Q. How much fine coal is made by a machine cutting across the face of a room?

A. About three-fourths of a car in a six-cut room.

Q. In shoveling this coal into a mine car does it not have a tendency to cause fine dust to be put in circulation?

A. A certain amount.

Q. More so than if the coal had been pick mined?

A. Yes.

Q. Have you ever noticed the men working shooting the coal in the rooms or headings during the day?

A. Yes.

Q. Have you ever observed a shot that blew out and didn't bring the coal down?

A. Yes.

Q. Was there any flaming of the powder or dust?

A. I never saw them blow out, but I have seen where they had; but there was no flaming of the dust.

Q. Did you ever observe, in a shot being fired in the face of any place, that the flame from the powder would ignite little gas feeders?

A. Yes.

Q. How do they extinguish them?

A. They would generally go out themselves. If they did not, in some places a man would stand back about twenty feet and throw a lump of coal at them and the draft would put it out. Sometimes they would hit right where the gas was coming out.

Q. Did your duty require you to examine the places in the evening after the men had fired the shots to determine if there was any fire?

A. Yes.

Q. Have you ever found any?

A. Yes.

Q. What caused the fire?

A. The lighting of these feeders under the coal where they couldn't see them. In one case we had a man light a feeder and walk off and leave it.

Q. Have you stated the kind of safety lamps you used?

A. No.

Q. What kind?

A. Wolf lamp.

Q. Did you carry an open light also?

A. Sometimes in the day time—not lately though. I never carried an open lamp at night.



Q. Have you ever observed a flame immediately after a shot, which may have been due to the burning of the unconsumed gas in the powder?

A. No.

Q. Do the men who operate the mining machines get their hands and clothes more soiled than miners?

A. No.

Q. Being present in a pick-mined room, and in a room being undercut with a machine, would you get a larger quantity of fine dust in your nostrils in either room?

A. Yes; in the machine room.

Q. That dust would be inhaled with the air?

A. Yes.

By Coroner Amos: Q. What is done with that three-fourths of a car of dust? Was coal loaded on top of it?

A. The coal is dug along down the face until the car is completed, then the car is hauled out. They make an undercut clear across the room, blocking the coal with the pick. This is put on top of the car and hauled out.

Q. What do you mean by a cubic foot of gas?

A. The quantity of gas that, if placed in a square box, would occupy a space of 12x12x12 inches. It occupies different shapes in regard to the situation in the mine.

By Mine Inspector Paul: Q. What is the average width of the rooms near the face?

A. About nineteen to twenty-one feet.

Q. How deep was the undercutting made with the machine?

A. Six feet nine inches.

Q. How many holes would be fired to shoot down the coal?

A. Sometimes three or four.

Q. How deep were the holes made?

A. About the depth of the cut.

Q. What is the diameter of it?

A. Two inches to two and a half. Some of them using an expanding bit bored a three-inch hole at the back.

Q. How many cars of coal would be dislodged by shooting down the face of a room?

A. About thirteen cars on an average.

Q. What is the size of the cars in the way of tonnage?

A. They are supposed to hold two tons.

Q. Do you know how many tons of coal are produced by the use of a given quantity of powder?

A. No.

By District Inspector LaRue: Q. Do you know of any shots being fired immediately after the dust had been removed?

A. Yes, sir.

Q. Immediately after it was loaded?

A. Yes, sir.

Q. How soon after?

A. As soon as he could shoot it—as soon as he could withdraw the needle.

Q. Do you consider that a safe condition in which to fire the shot?

A. Well, yes.

Q. Have you any knowledge of a surveyor or engineer being burned in that mine by an explosion?

A. No, sir.

Q. Have you any knowledge of any man being burnt?

A. Yes, sir.

Q. How was he burnt?

A. Taking off the top of a pump and there was a rush of gas from down the pump.

Q. Was he severely burned?

A. No, sir.

Q. That is the only one you know of?

A. Yes, sir.

Q. Do you know of any mules or horses being burned?

A. No, sir.

Q. Do you know of any dying in the mines as the result of an explosion?

A. No, sir. I don't believe there was a horse killed. There were some injured and taken out and shot.

Q. How were they injured?

A. One ran off and ran into a door and broke his leg.

Q. You consider it is safe to fire a shot immediately after taking up the dust even if no water is used?

A. Provided there is not enough dust in the air to cause a dust explosion.

By Prosecuting Attorney Lowe: Q. Did you ever know of such an accumulation of gas in the mine at No. 6 that the workmen would take off their coats and fan it out of the room?

A. That was a precaution taken by the men working in these headings where the feeders were known to exist, before shooting. They take off their coats and fan the place good before shooting, whether they know there is gas there or not.

Q. You have told how one horse was injured. How were the others injured?

A. I believe that was the only one I know of being shot outside. I knew of a couple getting squeezed by cars.

Q. You said yesterday that you knew of no other explosion or accident at No. 6 while you were there?

A. Did I say that?

Q. I am not certain. Did you?

A. I don't think I did.

Q. Do you know of any trouble with the dust or gas or any other explosion while you have been there?

A. I don't know of an explosion but I know we fired the coal and dust a couple of times. There was never any force, though.

Q. Where was it?

A. On the bottom.

Q. When?

A. One about a month previous to the last explosion and one a year or two ago. By Mine Inspector Paul: Q. How was the dust fired?

A. By a runaway trip.

Q. That stirred up the dust?

A. Yes, sir.

Q. And what ignited the dust?

A. I could not say.

Q. Were there any open lamps there?

A. Yes, sir.

Q. Do you know whether the wires were fused by a short circuit?

A. I don't know whether they were fused. We had a short circuit.

Q. Does the short circuit give a more intense flame than the miners' lamps?

A. Sometimes. I have seen a short circuit without any fire, and I have seen it so intense that it would melt the T iron rails.

Q. At this time when the dust was flamed at the bottom of the slope was the dust dry, or had it been watered previously to that?

A. I am not sure now; I think the place was wet.

Q. Were the cars empty or loaded?

A. The last was empty cars. I am not sure about the first.

Q. Which would create the greater quantity of dust—a runaway trip of loaded or empty cars?

A. Loaded cars.

Q. Do you know if any person was burned or singed by the flaming of the dust?

A. No, sir; there were men right under the fire that were not burned.

Q. Do you know if they threw themselves on the pavement to prevent being burned?

A. Yes, sir; the flames passed right over them.

Q. Do you know the name of any man that was there?

A. Floyd Ford, who is dead.

Q. Any living man?

A. No, sir.

Q. Did you see it personally or is that your information?

A. My information.

Q. From whom?

A. Floyd Ford.

Q. What was his duty?

A. Motorman.

Q. This occurred a month previous to this explosion?

A. Something near that.

By District Inspector LaRue: Q. Was there any signs of fire left on that occasion after the explosion?

A. Yes, sir.

Q. How far was the extent of the explosion?

A. It did not go up the slope. It went the other way.

By Mr. Paul: Q. What was the nature of the evidences of heat?

A. Charred coal and soot.

Q. What produced that explosion—loads or empties?

A. Empties, the time I remember.

Q. How many empties went down that time?

A. Four.

Q. Do you know how far that explosion extended in from that point?

A. I should say about 200 feet.

Q. It looked like coal dust ignited then, did it not?

A. It looked that way.

Q. In your opinion what prevented a general explosion at that time?

A. An insufficient quantity of dust to keep up the explosion.

Q. Was there any possibility of there having been gas at that point?

A. No, sir.

Q. Do you know whether there was any report from the flaming of that dust or whether it dislodged any of the doors or brattices?

A. No, sir; just a quiet burning.

Q. What was the character of the charred dust?—was it a dark substance or silvery?

A. I think it was entirely consumed; just soot.

Q. You spoke of finding some charred dust?

A. I said coal.

Q. What was the color of that?

A. It was bright and silvery in places and in other places it was dark. The heat had chipped it at places and left the coal exposed.

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Next came CAL TARLETON, who being first duly sworn, testified as follows:

### Testimony of Cal Tarleton.

Examination by Prosecuting Attorney Lowe:

Q. Where do you live?

A. Watson.

Q. What is your occupation?

A. Mine inspector for the company.

Q. What company?

A. Fairmont Coal Company.

Q. Has that company a head inspector and assistants?

A. Yes, sir; they have a chief inspector and assistants. I am one of the assistants.

Q. Who is the chief inspector?

A. Mr. Dave Victor.

Q. What portion of the company's mines do you inspect?

- A. Beginning with Pennois and ending with Riverdale, and also Berryburg.
- Q. Did your duty ever call you to Monongah No. 6 and No. 8?
- A. I have inspected No. 6 at different times, more to be acquainted with the mine than anything else.
- Q. How long before the explosion had you been there?
- A. I was there on September 13th.
- Q. Had you been in No. 8 recently before the explosion?
- A. No, sir.
- Q. How often had you been in No. 6?
- A. I do not know.
- Q. What was the extent of your inspection?
- A. On my last visit I inspected practically the whole mine.
- Q. In company with whom?
- A. The mine foreman.
- Q. What were you inspecting it for?
- A. Safety conditions, ventilation, dust and everything of that kind.
- Q. Was this in the day time?
- A. Yes, sir.
- Q. The men were at work?
- A. Yes, sir.
- Q. You did not state in what condition you found the mine regarding ventilation, dust and gas?
- A. I found the ventilation good throughout the mine. I found no gas nor any accumulation of dust.
- Q. In a mine of that kind there is usually some accumulation of coal dust?
- A. Yes, sir; usually; very seldom at that time of year, though.
- Q. You found none at this time?
- A. I did not find any I considered worth mentioning in a report.
- Q. Where were you when the explosion occurred?
- A. At Enterprise.
- Q. How soon did you get to Monongah?
- A. About 3 o'clock.
- Q. Did you take part in any of the work going on after the explosion?
- A. Yes.
- Q. What did you do?
- A. I had charge along with the chief inspector, Mr. Victor, of restoring the ventilation and the rescue work.
- By Mine Inspector Paul: Q. How far had the ventilation been re-established when you arrived at No. 6?
- A. About half way down F face.
- Q. Did you recover any bodies between the mouth of the slope and that point?
- A. No, sir.
- Q. Did you observe the three men in the cabin at the foot of the slope?
- A. No; nothing more than I looked at them.
- Q. How long did they remain there?
- A. I don't know; they were taken out while I was down below.
- Q. Do you know if any effort was made to resuscitate these men?
- A. No; I do not.
- Q. In your work of rescue have you been all over the mines?
- A. No.
- Q. What part have you been over?
- A. Nearly all of E face and the headings off it; a portion of those on H face and I and G in C face, and a part of F.
- Q. Did you find the bodies of any that you recognized?
- A. No.
- Q. Did you find the corpses of any men in the mine?
- A. Yes, sir.
- Q. What appeared to have caused their death?
- A. Nearly all seemed to have been killed by a great force—some violence.
- Q. What probably caused that force?
- A. An explosion.
- Q. Did you see evidences in the mine of an explosion?

- A. Yes.
- Q. What was the condition of the roadway and entry and rooms in respect to the accumulation of coal dust?
- A. There was more or less dust in all places.
- Q. How do you account for its presence?
- A. I have not tried to account for it.
- Q. Was there more dust after the explosion than you observed on your last visit there previous to that?
- A. Yes.
- Q. What accompanied the accumulation of the dust? Were there any lumps of coal, or pieces of brattice boards or timber?
- A. Yes, sir.
- Q. Did you determine from your observation the general direction the force of that explosion traveled?
- A. No, sir; not from my observation.
- Q. Did you observe any posts, or pieces of coal that may have been blown out of the mouth of a room over against the rib of the entry?
- A. Yes, sir.
- Q. From your observation did the force of the explosion seem to be general throughout the mine?
- A. Yes, sir.
- Q. In your rescue work did you re-establish the ventilation?
- A. Yes, sir.
- Q. Did you make any advance beyond the current of air with the view of exploration to locate bodies?
- A. No, sir.
- Q. I do not know whether you understand: After having put up a stopping to conduct the air to the next breakthrough—after arriving at that breakthrough would you explore in advance to see what you could find?
- A. Yes, sir.
- Q. In that case you would be in advance of the current of air?
- A. Yes, sir.
- Q. In those places, in advance of the air, did you discover any gas with the safety lamps.
- A. Not explosive gas.
- Q. What was the character of the atmosphere?
- A. After damp we call it.
- Q. Would it be comfortable to remain in a room with that atmosphere any length of time?
- A. No, sir.
- Q. What effect would it have on you?
- A. Make you sick, and if you staid in long enough you would die.
- Q. In all the parts of the mine that you explored did you discover the presence of the after damp?
- A. Yes, sir.
- Q. Were any of the rescuing party with you incapacitated by inhaling that after damp?
- A. None of the workers, but the state inspector, or one of the state inspectors, and the engineer got sick one night and had to lay off.
- Q. How long can a man live in that atmosphere?
- A. I could not say; some longer than others.
- Q. Would you feel safe in spending a half hour in there a couple of hundred feet in advance of the current of air?
- A. No, sir.
- Q. You think that condition prevailed throughout the mine after the explosion?
- A. Yes, sir.
- Q. Is there any possibility of a man living in that mine any length of time over half an hour?
- A. I don't think so.
- Q. On the E face entry—did you go to that entry?
- A. Yes, sir.
- Q. Did you find any bodies or animals along that entry?

- A. Yes, sir.
- Q. Were they burned or mutilated?
- A. They were all badly mutilated, with one exception.
- Q. Do you remember finding a trapper boy in a little excavation in the coal?
- A. Yes, sir.
- Q. Was he mutilated or burned?
- A. No; that is the one exception.
- Q. Have you been in other mines after an explosion?
- A. Yes, sir.
- Q. What mines?
- A. Gaston and Farmington.
- Q. What was the nature of those explosions—the cause?
- A. Supposed to be gas.
- Q. Were the conditions at the mouth of No. 6 the same as at Gaston and Farmington after the explosion?
- A. They were similar, except they did not extend all over the mine like Monongah—were confined to certain headings.
- Q. Which would you consider a more important factor in the explosion at No. 6—the gas or dust?
- A. Dust.
- Q. Do you have any mines in your circuit in which the gas is liberated?
- A. One; Berryburg.
- Q. Is that mine equipped with electrical machines?
- A. Yes, sir.
- Q. Is there any danger in a gaseous mine by reason of the electrical equipment?
- A. Not necessarily. It depends on the amount of gas.
- Q. What does that depend on—ventilation?
- A. Yes, sir.
- Q. What do you know of the sparking from the commutator on the machine—would that be sufficient to ignite the gas?
- A. I do not know.
- Q. Have you observed whether or not the commutators of mine machines emit sparks?
- A. I have seen them do it.
- Q. Are you familiar with the installation of electrical appliances for mine purposes, such as the use of automatic switches and fuse plugs?
- A. Not very.
- By District Inspector LaRue: Q. Do you consider it safe to fire a shot in a machine-mined room without the dust being removed?
- A. You mean to use black powder?
- Q. Yes.
- A. Yes, I think it could be done. It would be safe unless the shot blew out.
- Q. That is your judgment?
- A. Yes, sir.
- Q. Since you have been inspector in these mines do you know of any test being made of the air, as to the dust in the mine, at the time the mine was operated?
- A. No, sir.
- Q. You think none was made?
- A. Not that I know of.
- By Mr. Alexander: Q. How long have you been an inspector?
- A. About sixteen months.
- Q. What was your occupation prior to that?
- A. Mine foreman.
- Q. What mine?
- A. Gaston.
- Q. How long have you been a mine foreman?
- A. Seven years.
- Q. How long had you been employed in the coal business prior to being inspector?
- A. About twenty years.
- Q. What mines other than Gaston have you worked in?

- A. I worked in Ohio three years, and the rest of the time has been around here. I worked in New England.
- Q. Did you ever work in New England, or the shaft?
- A. Not as a miner.
- Q. Your territory begins at Pennois and goes up the river including Riverdale, Highland, Middleton, Everson, Chiefton, Hutchinson and Riverdale?
- A. Yes, sir.
- Q. And Anderson?
- A. Yes, sir.
- Q. Have you had this territory ever since you have been inspector?
- A. No; in the beginning we had more than that; we went on up to Gypsy.
- Q. That included the Solon and Ehlen mines?
- A. Yes, sir.
- Q. Have you inspected any other mines, not in your district, since you have been inspector?
- A. Yes, sir.
- Q. What?
- A. Monongah, New England, Gaston, Shaft and Montana.
- Q. What were your duties as inspector?
- A. First, the safety condition. We take that up first.
- Q. Including the air, ventilation, dust and gas?
- A. Yes, and bad roof or anything.
- Q. After that what?
- A. We looked after the management of the mine, the condition of the roads and taking care of everything.
- Q. In making the inspection who went with you?
- A. Either the mine foreman or the superintendent. If the superintendent went, they both went. We were always accompanied by the foreman.
- Q. What part of the mine did you visit?
- A. We usually visit all the headings and as many of the rooms as possible. We usually take two days, if it is a large mine, and if it is a small one we do it in a day.
- Q. After you completed your inspection who did you report to?
- A. To the general superintendent.
- Q. Was that a written or oral report?
- A. Written.
- Q. Was that report completed as soon as you inspected the mine?
- A. Yes.
- Q. Do you know what course was pursued by the general superintendent after receiving this report?
- A. He takes it up, point by point, and sends a copy of it all to the superintendent.
- Q. And to the mine foreman?
- A. Yes, sir.
- Q. In making this inspection do you test the air?
- A. Yes, sir.
- Q. To ascertain the amount of air being furnished?
- A. Yes, sir.
- Q. You visited No. 6 on September 13th?
- A. Yes.
- Q. You were not there again until after the explosion and you got there about 3 o'clock in the afternoon?
- A. Yes, sir.
- Q. Had anyone at that time gone into No. 6?
- A. Yes, sir.
- Q. In what part of the mine had they been when you got there?
- A. They were working along the main heading between C and F face.
- Q. How long did you work in the mine that afternoon in rescue work and re-planting the ventilation?
- A. The rest of that day and that night and the next day; altogether from the 6th to the 22nd.

Q. What was the condition of the mine immediately after the explosion, when you went in there, compared with what it was in September? Was it any drier?

A. Yes.

Q. Did you notice in September any part of the mine that was naturally wet?

A. Yes; some parts were.

Q. How soon after the explosion did you visit any of these same parts of the mine?

A. I can't tell how long it was—probably a week.

Q. You say there was more dust and fine coal in the mine after the explosion than there was in September?

A. Yes.

Q. Did you examine this debris you found piled up in the heading after the explosion? Did you observe if it was dust or fine particles of coal?

A. A good deal was fine coal. It was not all dust.

Q. There was a great deal more of that found after the explosion than there was there in September?

A. Yes, sir.

Q. If this debris was fine coal it must have been created during the explosion?

A. Yes, sir.

Q. How did Monongah No. 6 compare with the other mines included in your district, so far as ventilation and safety arrangements are concerned?

A. I always considered it the best mine I visited. The condition was really better than any other mine I go to.

Q. The fact is No. 6 and No. 8 are looked upon and considered the model mines of this district?

A. Yes, sir.

Q. This after damp you encountered in the mine after the explosion—is that heavier than air?

A. Yes, sir.

Q. That is the gas that accumulates after the burning of the atmosphere in the mine after the explosion?

A. Yes, sir.

Q. How about this gas we have been talking about—the fire damp? Is that as light as air or lighter?

A. It is lighter.

Q. That you find along the roof?

[Not answered.]

By Mine Inspector Paul: Q. Were you at any part of No. 8 since the explosion?

A. I have traveled through there.

Q. Did the force of the explosion destroy the brattice, stoppings and doors in the mine?

A. Yes, sir.

Q. What were some of these brattices made of?

A. Brick, some of them, and concrete, and others were of wood.

Q. After the explosion were you to the face of the E face entry, to the face off the sixth left of E face?

A. I don't think I was right at the face.

Q. Were you to the face of the sixth left?

A. That's what I speak of; I just walked round the face of it.

Q. Did you find the evidence of any explosive gas in these entries?

A. There was a little bit of gas in the sixth left at one time. I went ahead of the ventilation to the cross cuts. There was just a little bit up near the roof. We never found any in E face.

Q. Were you near the face of G entry?

A. Yes.

Q. Did you find the presence of any gas?

A. None standing; we thought we heard some in the water but didn't find any.

Q. Did you hear a noise like air or gas running through the water?

A. Yes, sir.

Q. Did you determine whether it was explosive gas or not?

A. No, sir.



Q. Did you get your lamp near it?

A. I was not up to that point. The first time I went in the water was getting deep and I didn't go to the face, for the people before me had explored that. I went in to see but there was no gas standing there.

Q. Did you find any cars or motors derailed or wrecked?

A. Yes, sir.

Q. Did you examine the working places to determine what their condition was at the time of the explosion?

A. I didn't any more than in some cases we looked around a little. We usually wanted to get away from there as quickly as possible.

Q. Were you in first or second left off E face?

A. Yes.

Q. The map indicates that some of these pillars between the rooms had been removed—robbed out workings?

A. Yes, sir.

Q. Did you discover any evidences of the force having come out of these workings?

A. No, sir.

Q. Did you discover any evidences of the force having gone into these workings?

A. Yes, sir.

Q. Were you present when the body of the man was found back up on top of those falls?

A. Yes, sir.

Q. That was in fourth left entry off E face?

A. No; it was either first or second right off of G.

Q. In any part of the mine where you have been since the explosion have you observed that any force appears to have come out of where the pillars have been robbed?

A. No; I have not been noticing particularly. If I had been hunting for something of that kind, I might have taken note of something different.

By District Inspector LaRue: Q. Did you examine the result of that explosion which occurred at the bottom of No. 6 slope a month prior to this explosion?

A. No, sir.

Q. Do you know whether that was reported to the officers of this company, or not?

A. I do not know.

Q. Do you know why it was not reported to me?

A. I do not know anything about it.

Q. Speaking of the general condition of No. 6 and No. 8, what is your opinion in regard to the general safety of the mines as compared with other mines—speaking of the inside condition?

A. I always considered them the safest mines we had.

Q. Have you any knowledge of a surveyor or engineer being burned in either of these mines?

A. I believe I heard of one being burned at No. 8 mine from a blown out shot.

Q. How long ago?

A. I could not say.

Q. Since coming to this district as inspector?

A. I don't think so.

Q. Prior to my coming?

A. I think so; I heard that; I don't know that it was true.

Q. You don't know the date of that?

A. No.

Q. He was burned from a blown out shot?

A. Yes; I heard that.

Q. Do you know of any horses or mules being burned?

A. No.

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Next came JOHN C. HALLAN, a witness of lawful age, who being first sworn, testified as follows:

### Testimony of John C. Hallan.

Examination by Prosecuting Attorney Lowe :

Q. Where do you work?

A. At Farmington.

Q. Do you live there?

A. Yes, sir.

Q. What occupation did you formerly follow?

A. A miner; mine foreman and superintendent.

Q. Where?

A. In Ohio and West Virginia.

Q. Where did you work in West Virginia?

A. In the first place for Mr. Clark, at the Ocean mine in Harrison county.

Q. Where did you last work?

A. In Samuel W. Shrader's at Tygart's Valley.

Q. How many years did you follow that business?

A. Eighteen.

Q. Do you still work at it?

A. No.

Q. Were you at Monongah after the recent explosion?

A. Yes, sir.

Q. When did you reach there?

A. At 3 o'clock on Friday.

Q. Did you assist in the rescue work?

A. Yes.

Q. At which mine?

A. No. 6.

Q. How long did you stay there?

A. From Friday afternoon until next Thursday morning.

Q. What time did you go in the mine first?

A. Saturday morning.

Q. In what capacity?

A. I don't know. I went in with Mr. Tarleton to direct the work and use the safety lamps. We were an exploring party.

Q. The object being to further the ventilation and recover the bodies?

A. Yes, sir.

Q. What condition did you find the mine in?

A. It is hard to say; pretty bad. I found it in a condition you would generally expect from anything of that kind—badly wrecked, timber scattered and bodies of men, horses and mules.

Q. What part of the mine did you find this in?

A. The first was in the main heading. I don't know the parts by name. The first encounter was with the electric motors.

Q. What condition were they in?

A. Some parts were torn off, the shoes broken, and the motorman lay dead at his post.

Q. What condition was the body in?

A. As well as I remember I found his body jammed back in the motor where he had been sitting, with one arm thrown about thirty feet away. I didn't take time to examine it; that is not what I was there for.

Q. You were over a considerable portion of No. 6?

A. Yes, sir.

Q. Was the ruin you mention general throughout the mine?

A. Yes, very general.

Q. Did you notice that any portions exhibited any greater force than others?

A. Yes.

Q. Where were those parts?

A. Mostly in the main heading and some of the rooms; more generally the main haulways and headings.

Q. While you were there did you encounter any gas?

A. Just one place.

Q. Could you locate that?

A. The head of G face; there was a slight trace of gas there, but not any more than would be expected after that length of time with the brattices torn down—not as much as I expected.

Q. Did you have any occasion to go ahead of a current of air?

A. Yes, probably one hundred feet—the distance of a breakthrough or cross cut.

Q. What was the condition of the air in those places?

A. Very hot; very hard on the eyes; very nasty to breathe.

By Mine Inspector Paul: Q. What do you mean—that it had a high temperature?

A. Yes.

Q. That hurting of the eyes—to what do you attribute that?

A. I think there was a kind of sulphur in the air.

Q. You found no large quantities of gas in the mine?

A. No. In fact, we were looking for gas to detect any danger, but our main object was to locate those men.

Q. If the mine had generated large volumes of gas, and the ventilation had been destroyed, what would you naturally expect to find with reference to the gas?

A. I would expect to find more gas than we did.

Q. From your observation and the tests made would you say you considered No. 6 a gaseous mine?

A. No, not in the fullest sense of the word; I don't think it is a very gaseous mine.

Q. Have you had experience in testing for gas in other mines?

A. Some, as mine foreman; I was never a fire boss; I have been acquainted with the business for the last twenty years with the exception of the last four years.

Q. Did you find much accumulation of fine coal or dust in No. 6?

A. More coal dust than anything else, probably. You might say a great deal of broken coal.

Q. Did you find any evidence of recent heavy falls in any part of the mine?

A. In some of the rooms, I think off of H face, and the third left, probably 22 to 26, or somewhere along there.

Q. The H face heading does not appear to have any left heading?

A. It would be left going the way I understood it.

Q. Was it in a part of the mine where the pillars had been robbed?

A. No, sir.

Q. Did the falls appear to have fallen before the explosion or afterwards?

A. After.

Q. I asked whether you found indications of any heavy falls prior to the explosion?

A. That would be hard to determine. It would have been covered by the dust and you could not tell without making an examination.

Q. In your judgment was the gas or the dust a more important factor in the explosion?

A. I should think it was dust.

By District Inspector LaRue: Q. You say the dust was the cause of the explosion. At what point, in your opinion, did the explosion occur?

A. I could hardly tell.

Q. Well, we want your opinion?

A. I don't think this a good place to express an opinion unless you want me to base the opinion on my previous experience.

Q. You are an old mine man?

A. If you want me to base that opinion on my previous experience, I might give an experience that would help to substantiate that opinion.

Q. You did not see the condition of the track at the bottom of No. 6?

A. No; I saw nothing until I saw the motor car.

Q. Well, I insist on your giving your opinion as to which mine the explosion started in?

A. I say this: I am willing to express an opinion if you allow me to give my experience to substantiate that.

By Coroner Amos: Q. You might give your opinion, Mr. Hallan?

A. About fourteen or fifteen years ago, at Hawley's Run in Ohio, in the Hocking

Valley, this took place: There was a blown out shot. Three rooms had been cut adjacent to each other. The ventilation was slack, and they had thrown the slack coal back—the coal dust from the mining machines. Three men did that in the morning, and then fired a shot and they had a dust explosion, but they did not have current enough to carry the explosion any distance. There was no gas in that mine. At Arden, West Virginia, there was a blown out shot but there was no gas there.

Q. Please just give your opinion.

A. My opinion is it was a blown out shot with a small percentage of dust or gas.

Q. Have you knowledge enough of these two mines to state where the explosion started?

A. In between the two mines—between the main heading of No. 6 and No. 8.

Q. Could you suggest any point on the map where you think it started?

A. Not exactly.

Q. Was this location you speak of in No. 6 or No. 8?

A. I was never in No. 8.

Q. Well, the location referred to was in No. 6, then?

A. Yes.

Here the court adjourned until one-thirty P. M.

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#### AFTERNOON SESSION.

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Next came LOWMAN RIGGS who being first duly sworn, testified as follows:

#### Testimony of Lowman Riggs.

Examination by Mine Inspector Paul:

Q. What is your occupation?

A. Engineer.

Q. For whom?

A. Fairmont Coal Company.

Q. What kind of an engineer?

A. Mining engineer.

Q. Are you a division engineer?

A. Yes, sir; division engineer.

Q. Where do you work?

A. We have what is called the Monongah division, which includes all of the Monongah mines, and from Pennois to Middletown.

Q. How long have you been in their employment as division engineer?

A. Close to two years.

Q. How long have you followed the profession of engineering?

A. About seven years.

Q. Have you had technical instructions along these lines?

A. Nothing only practical experience and the Scranton school courses.

Q. Are you familiar with both No. 6 and No. 8 mines?

A. Yes, sir.

Q. When were you last in either of those mines before the explosion on December 6th?

A. The last survey we made in No. 8 was the third quarter during the year—near October 25th. I would say three months previous to December in No. 6.

Q. Did you have charge of the work that was done at that time?

A. Yes, sir.

Q. How many men were with you on that survey?

A. Two besides myself.

Q. What did that work consist of—measuring up the distances and taking courses?

- A. Yes, sir; taking courses and distances in order to make the map.
- Q. Did you use open lights in your work?
- A. Yes, sir.
- Q. When did you do that work—day or night?
- A. No. 6 day time and No. 8 at night.
- Q. Did you have the service of the fire boss in doing that work?
- A. When we needed it. We only needed the fire boss to find out where there was gas, if any, but we did not have one along with us all the time.
- Q. In measuring up the work at night did you have some person—a fire boss—go into the working places and make a test for the presence of gas?
- A. Where no one was working in No. 8 he would go around and keep ahead of us to look out for gas and let us know if there was any gas that was dangerous.
- Q. Have you found, in your work in those mines, that you were not able to take the necessary measurements in the working places on account of gas?
- A. Not on account of gas; no, sir.
- Q. Have you an idea as to what constitutes a dusty mine?
- A. In these mines I would not call any place dusty only in the rooms where they were working.
- Q. If you were called upon to describe a mine that you would consider being in a dusty condition what would you say was a dusty mine in your judgment?
- A. I would not hardly be able to decide.
- Q. If you are not able to decide what would be a dusty mine, would you be in position to state as to what was not a dusty mine?
- A. Well, of course some of the headings in No. 6 and No. 8 mines were some dusty. Take it in No. 8; four or five headings always have water in, more or less.
- Q. Is your knowledge as to the condition of No. 6 and No. 8 mines sufficient to enable you to decide what sections were known as being dusty sections—that is, naturally—so as to necessitate the use of water for allaying the dust?
- A. Third right E face; water was standing in there and, has been for months, and sixth left on E and also fifth left heading was stopped on account of water at the face and dripping and all the others on that face were working. All the lefts off of F were wet—water running through from No. 8—and also F face heading was wet.
- Q. How about fifth right in No. 8 on the second North?
- A. That was a wet heading. Also third and second right; but the lefts, so far as I know, were dry.
- Q. Are you familiar with the location of third North in No. 8 mine?
- A. Yes, sir.
- Q. Did you assist in locating the bore hole from the surface to third North?
- A. Yes, sir.
- Q. What was the purpose of that hole?
- A. For a pumping station.
- Q. Is there any water in third North entries?
- A. Not at the present time, no, sir.
- Q. Any in the face of the main entry of No. 8?
- A. Yes, sir; there is some there at present.
- Q. Do you know if that hole has been drilled to the coal?
- A. Yes, sir.
- Q. What is its depth?
- A. One hundred and twenty-eight feet. I might miss it a foot or so.
- Q. Have you visited the top of the hole at any time since it was drilled?
- A. I was there when the machine was on the ground drilling.
- Q. Do you know whether or not the hole gave off any gas?
- A. Indeed I can't say.
- Q. What is the diameter of the hole?
- A. Eleven inches.
- Q. On your visit to these mines just prior to the explosion, what evidence did you find of the mine being dusty?
- A. I can't say anything about that; not going there for that purpose, I would hardly know.
- Q. Have you been at either of these two mines since the explosion?

A. I have been through a part of No. 8 and a part of No. 6.

Q. What are the conditions now as to an accumulation of dust in the entries and rooms as compared with the conditions that existed upon your former visit?

A. Since the explosion I noticed more dust than I did before. I know there is a good deal more than I noticed before although I didn't take particular notice of that before.

Q. Did you assist in the rescue work in No. 8 mine?

A. Yes, sir.

Q. Did you see dead bodies taken out of No. 8?

A. Yes, sir.

Q. What was the condition of some of them?

A. Some of them were very badly mutilated and some were simply suffocated.

Q. In what part of the mine did you observe a number of bodies that appeared to have come to their death by suffocation?

A. Mostly in fifth right No. 2 North No. 8.

By Mr. Alexander: Q. You have nothing to do with the mine except as an engineer?

A. No, sir.

Q. And didn't pay any particular attention to the conditions in the mine at all?

A. No, sir.

Next came J. B. ROGERS, who being first duly sworn, testified as follows:

### Testimony of J. B. Rogers.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. At Fairmont.

Q. What is your occupation?

A. Engineer.

Q. For whom?

A. Fairmont Coal Company.

Q. Are you a division engineer?

A. Yes, sir.

Q. What district?

A. From Enterprise above, toward Clarksburg to Farnum.

Q. When were you in No. 6 or No. 8 mine previous to the date of the explosion?

A. I was never inside of them previous to that date.

Q. When were you in the mines first after the explosion?

A. I went inside Saturday morning following the explosion—on the 7th.

Q. Did you assist in the rescue work?

A. I did.

Q. Were you at the face of the E face entry?

A. I was within twenty-five feet of the face.

Q. What was your observation in reference to any dust or broken coal that may be deposited throughout the mine at the present time?

A. It can be seen in all parts of the mine in large quantities compared with what it should be under working conditions of the mine.

Q. Would you consider the present condition of the mine to be dusty?

A. I would say so.

Q. In the present condition of the mine would you consider it safe to operate it as it formerly had been without the removal of the dust?

A. The mine would not be operated in its present condition.

Q. Have you been in other mines after explosions other than the Monongah mines?

A. I have not.

Next came JOHN C. THOMPSON, who being first duly sworn, testified as follows:

## Testimony of John C. Thompson.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. I live at Watson.

Q. What is your occupation?

A. Mine inspector.

Q. For the Fairmont Coal Company?

A. Yes, sir.

Q. What sections or district have you?

A. I commence at Ehland, go to Gypsy, next to Clarksburg and then I go to Montana and Beechwood.

Q. How long have you been an inspector?

A. I have been an inspector since the first day of April.

Q. Did you ever have any experience in examining mines No. 6 and 8 at Monongah?

A. No, sir; not only during the work we had there.

Q. You have been to these mines since the explosion?

A. Yes, sir.

Q. What time did you go there?

A. I suppose about 4:30 on the day of the explosion.

Q. When did you first go in the mines?

A. Immediately; as soon as I could get in.

Q. Which mine?

A. No. 8.

Q. How long did you stay there?

A. I staid all night and the next day until evening.

Q. What were you doing in there?

A. I was assisting to get the bodies out and going in advance.

Q. What condition did you find the interior of the mine in?

A. It was torn up pretty badly; the brattices were torn out, and so on.

Q. Who was in charge of the party in which you were working?

A. I was.

Q. Your work consisted in fixing up the brattices and getting the air-current back?

A. Yes, sir.

Q. How far in did you go?

A. We got in to first No. 1 South.

Q. Did you go in advance of the air-current any?

A. Sometimes we would be a little in advance.

Q. What was the condition of the atmosphere?

A. There was a little black damp or after damp caused by the explosion—a little foul air.

Q. How long could you stay in it away from the current?

A. I didn't try to stay in there; whenever I encountered it I would return and fetch the air up to it and drive it off.

Q. Did you detect the presence of any considerable quantity of gas in your work there?

A. We did once.

Q. Where was that?

A. Third left second North.

Q. What quantity?

A. Well, I don't think there was a great deal, but as soon as I detected it I walked back and got the air—got the brattices up and drove it out.

Q. As far back as you went were you able to distinguish from the timbers, or otherwise, what direction the force of the explosion traveled?

A. I might form an opinion but we could not base anything because I didn't make an examination in that respect.

Q. You know nothing about the previous condition of the mine, I believe you stated?

A. No, sir; I do not.

- Q. You found some dead bodies during your search?
- A. Yes, sir.
- Q. What condition were they in?
- A. Some were nude and some apparently not molested very much—simply turned face down—while some were torn up some.
- Q. Some had the indication of having died from mere suffocation, you think?
- A. Yes, sir.
- Q. What kind of a lamp did you employ?
- A. The Wolf lamp.
- Q. Is that a safety lamp?
- A. Yes, sir.
- Q. The quantity of gas which you speak of—would that have been in dangerous quantities with an open lamp, do you think?
- A. Yes, sir.
- Q. On what day did you discover that?
- A. I can't say just what day it was.
- Q. About how many bodies do you say you recovered?
- A. I can't tell you about that.
- Q. Out of the number of bodies that you rescued, or were present when they were rescued, about what proportion of those would you judge had died from suffocation as compared with those who might have died from violence?
- A. I can't say about that; I could hardly give how many.
- Q. Did you find many bodies that had been dismembered in any way?
- A. Some few; yes, sir.
- Q. Are you able to judge of the dust existing in a mine previous to an explosion by an examination made after an explosion?
- A. No, sir.
- Q. Why not?
- A. Simply from the fact that I, not being in it before, I could not tell anything about how much dust was there before by the amount made during the explosion.
- Q. Judging from the evidences of violence which you saw in the mine would you infer that the force had been sufficient to have broken up the coal and made considerable dust?
- A. Yes, sir.
- Q. Did you find any cars that appeared to have been loaded at the time the explosion occurred that had been apparently emptied of their coal?
- A. Yes, sir.
- Q. Did you locate the coal that had been blown out of the car?
- A. Some of it we could.
- Q. Were you in room 21 on the second right on first South?
- A. Yes, sir.
- Q. What did you find in that room?
- A. That is the room we found the machine men in.
- Q. Were you there when the bodies were rescued from that room?
- A. Yes, sir.
- Q. What was the condition of these bodies? Were they burned?
- A. I didn't examine the bodies to see whether they were burned or not.
- Q. Did you find any evidence of any exceptional violence in that room?
- A. Yes, sir.
- Q. More so than in other rooms on that same entry?
- A. Yes, sir.
- Q. Did you find the presence of any gas near the face of the room?
- A. Yes, sir.
- Q. Did you make a test for it?
- A. Yes, sir.
- Q. Did you examine all the rooms on that entry?
- A. Yes, sir; as we advanced we made an examination.
- Q. Did you find much evidence of heat in these rooms?
- A. Yes, sir.
- Q. What was the nature of that evidence?



A. It was very warm—what we might call an after damp—and the place was very warm.

Q. Did you find any evidence in this room of there having been an exceptionally high temperature there at the time of the explosion, that had left its marks?

A. Yes, sir.

Q. What?

A. It seemed like there had been powder exploded at that point.

Q. Did you find any powder cans there?

A. I didn't make any examination of that?

Q. Did you see any ribs or the roof of coal that had on them charred dust?

A. Yes, sir.

Q. Did you find similar evidences in other parts of the mine?

A. Not as strong as that.

Q. Were you on the fifth right off the second North, No. 8?

A. I think I was up there, but I think it was when we went back after some horses, if I remember right.

Q. Did you observe whether there was evidence of charred dust or evidence of there having been much heat there?

A. I didn't pay any particular attention there.

Q. Did you find on the second right off of first South, an empty trip of cars that were wrecked?

A. Yes, sir.

Q. What was the position of the motor?

A. It had turned crosswise of the track?

Q. Did you find any bodies in the vicinity of that wrecked trip?

A. Yes, sir.

Q. How were some of them located with reference to the cars?

A. There was one lying right between the cars and the motor, as the motor was turned around, and they were all alone there; I can't locate the place exactly.

Q. Were any of them under the cars?

A. Yes, sir; I think they were.

Q. Did you assist in recovering any bodies near the turnout second South main No. 8 South return air course?

A. Yes, sir.

Q. Where did you find all these bodies?

A. I only helped with one down there; that was in your presence.

Q. Where was that body found?

A. That was in that air course on second North.

Q. Was that body in a ditch?

A. No, sir; that one was not.

Q. Have you observed sufficiently in this mine to be able to outline the general direction of any force that traveled through the mine?

A. No, sir; I have not.

Q. Have you given the subject of mine ventilation any special study?

A. Yes, sir.

Q. Do you know approximately the territory in No. 8 that it will eventually develop when it reaches its maximum development?

A. No, sir.

Q. What are the probable advantages of having several parallel entries in a mine for conducting the air?

A. You have more area to carry your air in.

Q. I mean several parallel air courses. Could you get a larger volume of air with less velocity than if you had a single air course?

A. Yes, sir.

Q. Would that velocity, as modified by several parallel air courses, be in favor or against carrying dust long distances?

A. It would be against carrying it long distances.

By District Inspector LaRue: Q. What is your opinion of the general safety of that mine prior to the explosion?

A. I could only express my opinion from what I have heard.

Q. You were not personally acquainted with the condition?

A. No, sir.

Q. You have been partially through them since the explosion?

A. Yes, sir.

Q. What is your opinion in regard to what produced the dust that is now in existence in that mine?

A. I think the force of the explosion created that dust.

Q. That it did not consume?

A. Yes, sir.

Q. Do you think that dust has been created by force accompanied by flame or without flame?

A. Both.

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Next came JOSEPH W. STEVENS, who being first duly sworn, testified as follows:

### Testimony of Joseph W. Stevens.

Examination by Mine Inspector Paul:

Q. What is your occupation?

A. Chief engineer of the Fairmont Coal Company.

Q. How long have you occupied that position?

A. Two and a half years.

Q. What has been your experience in mining previous to occupying this position?

A. I served six and one-half years as division engineer for the Fairmont Coal Company.

Q. What training have you had in engineering?

A. Practical training and practical experience.

Q. In the line of your duties as chief engineer do you have the planning of the development of the mines?

A. In conjunction with the general superintendent.

Q. Have the plans of No. 6 and No. 8 mines been modified since you have been associated as chief engineer?

A. Yes, sir.

Q. What is the system of mining as conducted in No. 6 and No. 8 mines?

A. Double and triple entry.

Q. Do you have the panel system also in these mines?

A. Yes, sir.

Q. What are the advantages of the panel system of mining in relation to the safety of the mine and the recovery of the coal?

A. By the panel system we are enabled to get the maximum coal and at the same time facilitate the ventilation of the mine. I do not think we have many panels, but we have been trying to change it around that way.

Q. And does that system facilitate the splitting of air currents?

A. Yes, sir.

Q. Is that system of splitting the air currents in practice in these mines?

A. It is.

Q. What is the extent of the territory that No. 8 mine will finally develop?

A. I think about 3,000 acres; that is, between No. 6 and No. 8; they are together.

Q. The two mines will develop, when they reach their maximum development, about 3,000 acres?

A. Yes, sir.

Q. What were the advantages in connecting the two mines—6 and 8—on the second North F face?

A. So we would have a second outlet there, so as to repair the motors at No. 8. It is very easy to get No. 6 motors from No. 6 and repair them.

Q. How many openings had No. 6 mine, disregarding the connection from No. 8?

A. Two.

Q. How many has No. 8 mine—connections from the outside—disregarding the connections from No. 6?

A. One besides the prop hole.

Q. Was that connection made with a view to making an exit for the men in

their respective mines or to facilitate the transportation of coal, or for the purpose of facilitating ventilation?

A. I would say both for ventilation and for the transportation of coal, and then if either one of the fans broke down we could use either 6 or 8 fan. We could ventilate No. 6 mine by No. 8 fan if No. 6 fan broke down, or vice versa.

Q. What is the maximum area of coal that might be economically operated from one opening?

A. I am not prepared to say.

Q. Does the Fairmont Coal Company have any one coal mine that has as large an area as the combined area of No. 6 and No. 8 mines?

A. New England mine, I guess, has.

Q. When were you in No. 8 mine last previous to the explosion?

A. About a year ago.

Q. Did your duties require you to be in the mine for any purpose or is your work purely administrative?

A. Principally administrative; but if I have time to go in I go in.

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Next came EVERETT B. MOORE, who being first duly sworn, testified as follows:

### Testimony of Everett B. Moore.

Examination by Mine Inspector Paul:

Q. What is your occupation?

A. Engineer.

Q. Mining engineer?

A. Yes, sir.

Q. For whom?

A. Fairmont Coal Company.

Q. How long have you occupied that position?

A. About a year and a half, I believe.

Q. What had been your mining experience previous to occupying that position?

A. About two years altogether.

Q. What other mines have you had experience in?

A. None except the Fairmont Coal Company's.

Q. When were you in Monongah mines No. 6 and No. 8 last prior to the date of the explosion?

A. Never.

Q. Have you been in them since?

A. Yes, sir.

Q. Did you find evidence of an explosion having occurred?

A. Yes, sir.

Q. What were some of the evidences?

A. I found almost all the stoppings blown out, a considerable amount of wreckage, cars and motors wrecked, the condition of the bodies, and wires blown down.

Q. Have you had any experience in gaseous mines?

A. No particular experience; no, sir.

Q. Did you ever work in a dusty mine?

A. That would depend on what you mean by a dusty mine.

Q. What you might consider a dusty mine.

A. What kind of dust do you mean?

Q. Coal dust.

A. What do you mean by coal dust?

Q. Fine particles of coal sufficiently fine to assume the properties of dust that might be disturbed by a current of air striking them?

A. I don't think I ever did.

Q. Have you been through both No. 6 and No. 8 mines since the explosion?

A. Not in all parts.

Q. Did you find evidence in there of any accumulation of dust and broken coal?

A. I found a considerable amount of broken coal—coal ground up in fine par-

ticles—and also a considerable amount of charred dust, and some fine dust.

Q. Did you find any places where the pavement is dry, where, by kicking the material with your foot, that dust might be thrown into the air?

A. Yes, sir.

Q. You assisted in recovering bodies from these two mines?

A. Yes, sir; I assisted at No. 6 and did some work at No. 8.

Next came JOHN G. SMYTHE, who being first duly sworn, testified as follows:

### Testimony of John G. Smythe.

Examination by Mine Inspector Paul:

Q. What is your position?

A. Assistant chief engineer of the Fairmont Coal Company.

Q. How long have you occupied that position?

A. Nearly two years—that position.

Q. What other employment have you held prior to your coming with the Fairmont Coal Company?

A. On engineer corps for Delaware & Hudson Canal Company, Lehigh & Wilkes-Barre Coal Company, as engineer for Parrish Coal Company, all in the Wyoming region of Pennsylvania, before coming with the Fairmont Coal Company. Since being with the Fairmont Coal Company I have been division engineer and am now assistant chief engineer.

Q. Have you had experience in mines where gas was generated?

A. The first four years I spent in the Wyoming region were in mines which are accepted as being very gaseous.

Q. When were you in Monongah mines No. 6 and No. 8 last prior to the explosion?

A. About the first of November.

Q. What were you doing in the mine at that time?

A. I was in there with Mr. Victor, going through the mine, the principal object of the visit being to look into a drainage proposition at that time and to discover the condition of the mines generally with a view to drainage—planning the mine, laying it out, and so on.

Q. Did you make any observation at that time as to the general condition of the mine as to any accumulation of dry dust or gas?

A. We saw no dry dust. We were down there to locate a good way to get water out. About that time we were making arrangements for two bore holes to be used for pumping stations.

Q. Were the pavements of the mine damp?

A. As far as I remember; yes.

Q. Did they appear to be damp naturally or by reason of being sprinkled with water?

A. In the parts we were in on that visit they were damp naturally.

Q. Were you at the face of any of the working places?

A. We were at the face of the main dip headings and main haulway headings in No. 8; all the seven entries, the two south return air courses and also to the face of the other parallels in No. 8. In No. 6 we were over on G face where there was a pump; this territory was wet naturally and has been pumped, I think, since it started.

Q. Where does that pump discharge its water in G face, No. 6?

A. It is discharged in the sump on the third left off E.

Q. Did you find any indication of gas at the face of G entry?

A. I saw no gas at all. I have never seen any gas at either No. 6 or No. 8.

Q. Have you been through the mines since the explosion?

A. Yes, sir.

Q. Have you gone over the entire mines?

A. No, sir; not the entire mines.

Q. What is its condition now as compared with the condition formerly with reference to the accumulation of dust?

A. There is no comparison whatever between the accumulations of dust now and formerly. There are many times more dust now than before.

Q. How do you account for the present accumulation of dust—since the explosion?

A. A large part of it would come from the loaded cars which were destroyed and a great deal of it would come from being knocked off the ribs by the force of the explosion, in my judgment.

Q. Did you find much evidence of charred coal dust or coal in different parts of the mines?

A. Yes, sir; more or less. I would say that the dust is not in suspension, but is all in piles on the bottom. I do not know whether it is dust or just fine coal.

Q. Who superintends the preparation of the maps of these mines—the making of the maps?

A. It is done under the direction of Mr. Stevens and myself.

Q. Have you prepared a map of Monongah mines No. 6 and No. 8 showing the up-to-date workings and the location of the bodies as found, together with the direction of the air currents as they were traveling previous to the explosion?

A. Yes, sir.

Q. Please look at these maps and state whether these are the maps you so prepared.

A. These are the maps.

[Two certain maps, marked "Monongah No. 6" and "Monongah No. 8," dated "January 4th, 1908," signed by "J. G. Smythe, Assistant Chief Engineer," are here filed as a part of the testimony of this witness.]

Q. What is the object of having the different colors?

A. The different colors represent the different air splits. The red color on both maps represents the intake air and the yellow represents the return air. The other colors represent the various splits into which the air currents were divided to properly ventilate the mine.

Q. Indicate the opening of No. 6 mine and trace the line of the main entries.

[Witness referring to exhibit marked "Monongah No. 6," answers]:

A. The opening is at this point marked "pit mouth"; the rock slope then extends to the intersection of the B face with this slope. From that point the work is all in the coal. The main haulway runs in the same direction as the slope for about 500 feet, when it turns and runs in a general northwest direction about 400 feet. At right angles to this entry these headings are driven marked "B face," "C face," "D face," "E face," "F face," "G face" and "H face." From these face entries butt entries or room entries are driven at right angles as marked. For instance, No. 1 right, which means No. 1 right heading off B face; No. 2 and No. 3 right, and so on. The same on other entries as off of D face, No. 1 right, etc. From these room entries the rooms are driven, which, after being driven a certain distance and completed, are stopped and the pillars are drawn, which are hatched, that indicating that all the coal has been removed.

By a Juror: Q. Where on that map is the foot of the slope?

A. Right at the point which is the intersection of the B face and the slope heading. That distance is exactly 800 feet from the pit mouth; the scale of the map is 100 feet to the inch.

Mr. Paul, resuming: Q. Will you indicate on the map the location at which the runaway trip was wrecked?

A. It was wrecked at the intersection of the empty and loaded tracks near B face.

Q. Please indicate the connecting entries between 6 and 8?

A. This entry [pointing to map] continues for a distance of 2500 feet to No. 8. The end of the coloring on the map is the end of the portion ventilated by No. 6 fan. At the point where the coloring stops the air from No. 6 ceases to travel.

Q. To what face heading do you refer?

A. To the F face heading of No. 6 mine.

Q. What are those entries that are indicated on the map as paralleling each other, beginning nearest the river?

A. Beginning nearest the river we have the loaded track, next the empty track and the other one is the return air-course.

Q. On the return air course of left face beyond fourth right what kind of a brattice was there?

A. Personally I am not able to say, but according to the best information given it was of wood.

Q. Do you know personally of the character of the stoppings on the empty track B face entry?

A. No, sir; I do not.

Q. Where was the point of intake?

A. The air came in the pit mouth and also in the man way at No. 6.

Q. Did this explosion reach all the places indicated on the map?

A. To a greater or less extent it did.

By District Inspector LaRue: Q. Point out where the local explosion occurred.

A. I never heard of the local explosion, but if it occurred at the foot of the slope it would have to be at the intersection of the slope with B face, as that is the foot of the slope.

Mr. Paul, resuming: Q. Indicate on the map the location of the heading in which the first three men are reported to have been found.

A. It is represented by three black circles on the map at the foot of the slope. It is marked "slanty" on the map.

Q. What marks on the map indicate the location of the bodies?

A. The small black solid circles.

Q. In your judgment was gas or coal dust the more important factor in the explosion?

A. Of the two mentioned I would say coal dust.

By Mr. Alexander: Q. Tell the jury what you mean by "overcast?"

A. An overcast is made of either wood or concrete and is a frame which allows air to pass over the top and allows men, cars or motors to go underneath. Where two entries cross each other an overcast is built at the intersection to allow air to pass over the top and also underneath without mixing.

Q. What is the purpose of an overcast?

A. An overcast is to allow the air currents to be split.

Q. What do you mean by a "brattice?"

A. A brattice is a partition built in a cross cut to separate the air in one heading from that in another. For instance at this point here, [indicating on the map] in working the coal, there was a crosscut driven from this entry to that one, to enable the coal to be hauled through, and after the entries had advanced it was necessary to build a partition there in order to force the air beyond the crosscut.

Q. What do you mean by "regulator?"

A. A regulator is a partition which is partly open to allow a certain quantity of air to pass through it, which quantity can be made greater or smaller as it is found necessary to properly ventilate all parts of the mine.

Q. In common practice how are they made?

A. A regulator is either a wooden partition or brick wall which has a sliding door in it of a certain size—probably two feet square—which door can be opened or shut in order to make the aperture larger or smaller as is required.

Q. What do you mean by an "airsplit?"

A. An airstplit is a division in the total quantity of air which is entering the mine. A certain quantity is required to ventilate a certain portion of the mine, which, after it has passed through that portion, returns outside, while another quantity of fresh air goes to another portion of the mine in order to give the men working in that part the benefit of air which has not been used in any other portion.

Q. This mine is operated on a system of paneling?

A. Yes, sir.

Q. What is the object of operating under that system?

A. The principal object is to enable the air to be conducted through certain sections and return to the outside without going to other sections. In regard to safety, it is supposed that any accident or explosion which happens in one section only affects that section and no other part of the mine. For instance an accident happening on No. 4 right heading off F face would be confined to that one heading and would not spread to another section under ordinary conditions.

Q. This system of paneling gives the miners in each panel a separate and distinct source of air supply?

A. It does—fresh air supply.

Q. Take the panel that is colored green and trace the courses of air going in and out?

A. The fresh air enters in this direction, [pointing to man way] and also from the pit mouth, in this direction, and meets at this point which is at the intersection of No. 4 right heading with F face; it then goes down the fourth right heading to the last cross-cut. On returning part of it might go through rooms that had been cut through and part would return to the intersection of this air course and the air course off the F face; then it goes down the air course to No. 3 right heading where it would meet with a brattice which would turn it up to the third right heading and it would go to the face of the third right and to the last cross cut—through the last cross cut and back that air course, then through the rooms which have been cut through, or to the intersection of that air course with the F face air course, then down F face air course to second right, through the cross cut, out the air course to the air course of the F face, down this air course to the main return air course colored yellow, then back over to the overcasts at the F face heading; then over to the overcasts at the D and C face headings, also at the B face heading, and to the fan without going to any other part of the mine.

Q. Take second right off of F face and explain to the jury which one of these parallel headings the air would go in going in.

A. In going in it would go in the heading on which the rooms are, but coming out would come out the air course here. [Indicating on map.]

Q. Tell the jury why it would not go in on the other parallel heading.

A. At each cross cut there was a brattice.

Q. What do the arrows on these air courses indicate?

A. The direction the air travels.

Q. You say this ventilation was supplied by what system?

A. By an exhaust fan.

Q. In other words the fan drew the air out after it had gone in over the working places, instead of forcing it in over the working places?

A. It did.

Q. In your opinion is this system of using panels and air splits—will that supply the mine a purer supply of fresh air than any other system?

A. It will undoubtedly.

Q. The same system and same explanations apply to No. 8?

A. They do.

Q. No. 8 is divided into panels?

A. Yes, sir; as No. 6.

Q. Same system of ventilation?

A. The same system of ventilation; yes, sir. The air goes in at the pit mouth and also goes in the several openings to the enterop; then splits on the different face headings, which in turn splits at the different butt headings, which takes the fresh supply to each part of the mine?

Q. Can you point out to the jury the road hole out of which the four foreigners got out?

A. The four foreigners got out at this point [here indicating on map] which is the face of No. 1 South heading.

Q. Where were they working?

A. At this point [here indicating on map]. They call it third left.

By Mine Inspector Paul: Q. Indicate the entries that are going in the direction of the connection with No. 6 mine.

A. These entries were going in that direction—second north face heading. The

end of the green color represents the end of the parts ventilated by No. 8 fan; the other side was ventilated by No. 6 fan.

By Mr. Alexander: Q. You are acquainted with the other mines of the Fairmont Coal Company. Can you say now how the development—the property operated by these two mines, Nos. 6 and 8—compares with the development of any other mines in size?

A. No 8 is very much smaller than several others, and No. 6 is smaller than several that I can name.

Q. How about the two together? How do they compare with the development of New England?

A. The two together have not worked out much more than half the territory that New England has—about half.

Q. Are you able to give me the extent of the development of No. 6 since July, 1901, when it was taken over by the Fairmont Coal Company?

A. I have it indicated here on the map by dates, marked "7—1—07." The main haulway had reached the point marked in that way.

Q. Take this map—which is a map showing Monongah No. 6 mine when acquired by the Fairmont Coal Company. Does that indicate the development at the time the company took possession of it?

A. It does; that represents all the work done when the Fairmont Coal Company took possession of it.

Q. That is marked by the date "7—1—01," on the Monongah mine No. 6 map?

A. That is correct.

Q. All of the rest of this development has been since July, 1901?

A. Yes, sir.

Q. Can you give me, approximately, the number of working places in No. 6 mine at the time the Fairmont Coal Company took charge of this mine?

A. Possibly forty.

Q. Can you give me, approximately, the number of working places at the time of the explosion?

A. About 275 I will say. That means the number of places that could be worked; not the number that were working.

Q. You say that the piles of debris in either of the mines—which is ground fine coal, charred coal and coke—is very much larger than was in there previous to the explosion?

A. Yes, sir; very much more.

Q. Is there any way by which you can tell from an examination of the debris in either of these mines, which, if any of it, was there previous to the explosion?

A. I would not feel competent to answer that question. You might approximately, but according to my idea it would be hard to just say how much. Approximately I think you might.

Q. You have been through both of these mines since the explosion?

A. Yes, sir.

Q. You found a great many cars that had been apparently loaded with coal that were destroyed or wrecked, or partially wrecked, and the coal blown out or partially blown out?

A. Yes, sir.

Q. How many of these cars would you say were loaded and how many unloaded?

A. Possibly one half were loaded and the other half empty.

Q. What became of this coal that was blown out of the cars during the explosion?

A. It is there in piles on the tracks and constitutes a certain portion of the dust and debris found there.

Q. Isn't it true that you find nearly all of the ribs on the headings polished?

A. Yes, sir.

Q. And the corners going into the rooms round and smooth?

A. That is true.

Q. Didn't the result of that grinding and polishing go to make up the debris and dust found in there?

A. Yes, sir; and I would say that all of the dust that has been ground remains there.



Q. Isn't there one heading in No. 8 mine in which you found a trip of empty cars that were wrecked—the tops of the cars, down to the brakes, absolutely blown to pieces—into kindling wood?

A. Yes, sir.

Q. You find in various other parts of both of the mines some evidence of violence?

A. Yes, sir.

Q. Don't you think that this violence would reduce a great deal of the coal to the condition you found it in the headings and piled against the ribs along the headings?

A. Undoubtedly it would.

Q. So that by an examination of this stuff you find in there now you could not tell with any source of approximation what had previously existed there?

A. It would be a very loose approximation in my judgment.

Q. How many mine cars were in No. 8 mines just prior to the explosion?

A. Approximately 250.

Q. How many in No. 6?

A. About the same number; possibly 270. I am not certain about those figures.

Q. So, from those figures, aggregating 520 mine cars, you would say that there were something near 200 cars of coal in the mine at the time of the explosion, which coal was scattered and ground up in the mine?

A. I would say so; yes, sir.

Q. That is something like 400 tons of coal?

A. Yes, sir.

Q. I notice starting at the pit mouth of No. 8, you have six parallel headings and have, going into No. 2 North and No. 1 South seven parallel headings. What was the object in having so many headings?

A. It has been our experience that in ventilating a mine, after the mine reaches a certain extent, it is necessary to have larger areas to enable enough air to get in and out of the mine to properly ventilate it. These entries were projected for that purpose—three entries to carry the air in and four—two on each side—to carry the air out.

Q. It could be done by having one intake and one return air course, couldn't it?

A. In a mine of the extent that No. 8 now is it could, but it would not do for future development.

Q. If you only had, say two, air ways, isn't it true that the air going in the mine would travel with much greater velocity?

A. It would have to and after that mine had reached a certain extent that velocity would be impracticable.

Q. If there was coal dust in the mine and the air traveled at a greater velocity, what would be the effect?

A. The velocity of the air would stir up the dust and keep more dust in suspension and carry it over greater area.

Q. The object then of having these large number of parallel headings is to increase the volume of air, and at the same time reduce the velocity at which it travels?

A. That is correct.

By Mine Inspector Paul: Q. Which is the more dangerous dust—that carried in suspension or the dust found lying on the pavements?

A. My judgment would be the dust carried in suspension.

Next came DAVID VICTOR, who being first duly sworn, testified as follows:

### Testimony of David Victor.

Examination by Mine Inspector Paul:

Q. What is your occupation?

A. Chief mine inspector for the Fairmont Coal Company.

Q. How long have you occupied that position?

A. Over two years.

Q. What were your previous engagements?

A. Chief mine foreman of the Monongah mines.

Q. How many mines were under your jurisdiction then?

A. Three mines—rather five—three in operation and two not in operation.

Q. Who employed the mine foremen in No. 6 and No. 8 Monongah mines?

A. I employed the foreman at No. 8. The foreman at No. 6 was there at the time I went there. He was there as fire boss and was promoted to mine foremanship of the mine afterwards.

Q. How many assistant inspectors have you?

A. Three.

Q. What are the duties of yourself and your assistants.

A. Looking after the general safety of the mines, with the laying out and proper development of the mines, with regard to covering the coal, looking after the gas conditions, and so on.

Q. How many mines did you have under your charge for inspection?

A. The four of us had something like forty mines.

Q. Do you do any inspection work yourself?

A. Yes, sir.

Q. Do you have a system of reports made to you by your assistants?

A. They are made to the general superintendent.

Q. Do the various mine foremen furnish you with reports as to the condition of the mines and the currents of air that travel through the mines?

A. They are all furnished to the general superintendent's office, of which our office is a part.

Q. Do you have a record of the air currents as measured that were circulating through mines No. 6 and No. 8 prior to the explosion?

A. Yes, sir; at different times. We have the records at the different times of all the measurements that have been made.

Q. Do you know if these air currents and volumes are indicated on the maps filed as exhibits?

A. Yes, sir.

Q. Indicate on the map the volume of air traveling through the various splits and entries in No. 8 mine.

A. The first and second left butt headings, first south face, is ventilated by the general intake air of the mine. The third right off first south was supplied with 16,700 cubic feet of air, four miners working and seven bodies found; second right supplied with 20,400 cubic feet of air per minute, sixteen miners working, sixteen bodies found; first right split 9,700 cubic feet of air, fifteen miners working and nineteen bodies found; first right split on second North heading, 12,600 cubic feet of air, eight miners working and five bodies found; second right split 16,700 cubic feet of air, seven miners working, five bodies found; first left split on the second North heading, 17,700 cubic feet of air, fourteen miners working, eighteen bodies found; second left split 16,100 cubic feet of air, twelve miners working, eight bodies found; main North heading supplied by 17,300 cubic feet of air, forty-five miners working, seventy-three bodies found; third right split had 16,700 cubic feet of air, seven miners working, five bodies found.

Q. Follow that up with the same information as to No. 6 mine.

A. First, beginning at D face heading, was abandoned territory; also C face heading, supplied by 1400 cubic feet of air; no miners working, no bodies found; next is No. 2, first and second, right butts D face heading, 13,400 cubic feet of air, ten miners working, sixteen bodies found; the next split would be Nos. 2, 3 and 4 right F face heading, 15,500 cubic feet of air, thirty miners working, thirty-two bodies found; No. 1 right F face, 5,000 cubic feet of air, two miners working, four bodies found; H face heading split, 15,400 cubic feet of air eleven miners working, fourteen bodies found; on the other side, E face heading, first and second lefts, 20,300 cubic feet of air, thirty-three miners working, thirty-eight bodies found; E face heading, second and third left split, 11,400 cubic feet of air, five miners working, nine miners' bodies found; E face heading split, 4, 5 and left butts, 16,100 cubic feet of air, twenty-four miners working and thirty-two bodies found.

Q. When were you in either of these mines last previous to the date of the explosion?

A. I believe on the 19th and 20th of November I was in No. 6, both days. On the 24th and 25th I was in No. 8 mine.

Q. What was the condition of these mines in respect to being dry or dusty?

A. There was no dust, except in one or two places to be taken into consideration. I believe one or two places in the main headings I asked to have sprinkled. They were not dusty at the time, but showed evidence of becoming dry and needed to be looked after.

Q. Are each of the mines equipped with electric wires for power purposes?

A. Yes, sir.

Q. What kind of a current do you have in the mines—direct or alternating?

A. Direct, I believe. I am not very well versed in electricity, however.

Q. What is the voltage of the wires?

A. About 260 volts.

Q. Are the electric motors and mining machines operated by the same system of wires?

A. Yes, sir.

Q. What arrangements are made in different parts of the mines for fuse plugs or automatic switches?

A. The butt headings in the mines were provided with switches, so that when the machines were not being operated in these sections the currents could be cut out, the switches pulled and the currents cut off of the sections not in operation.

Q. Have you any fuses in the mine or elsewhere?

A. No, sir; not to my knowledge—outside of what is on each machine.

Q. Are any of the rails bonded?

A. Yes, sir; some rails in rooms had previously been bonded. The motors were afterward equipped with double cables and the bonds were discontinued in the rooms.

Q. How many motors were used in No. 6 mine?

A. Two.

Q. Were they gathering motors?

A. No, sir.

Q. How many motors in No. 8 mine?

A. I believe five in operation—possibly six—gathering motors, with one main haulage motor.

Q. What character of cutter did you use on your machines?

A. Some used the pick point, while others used the chisel, and some used a mixture of each—put a number of each kind in their chain. Generally, I believe, the pick points were used.

Q. Does the use of chain machines make an excessive quantity of dust in cutting coal?

A. Well, they make some dust; I do not know whether we would term it an excessive quantity of dust or not.

Q. Have you any instructions—or does that come under your authority—with reference to the time in which a shot may be fired in a place where the machine has cut coal?

A. They are supposed to wait a period of some fifteen or twenty minutes, but these instructions are very often disregarded by the miners unless some one is there to look after each place.

Q. What is the necessity for waiting that length of time?

A. The only necessity would be to allow the dust to settle a little after loading in the car, as there would be a certain amount of dust in suspension in the air.

Q. Is there probably danger of firing a shot in a room where there is dust in suspension?

A. We have always considered it a small amount of danger. We have never taken that into consideration, while it has been a fact that a blown out shot—a shot that did not bring the coal down—under conditions of that kind would ignite the dust.

Q. In your experience as mine foreman in these mines did you ever observe the inflaming of the dust in the rooms after a shot?

A. No, sir; I have observed the inflaming from an overcharge of powder and also blown out shots that did not bring down the coal, from the fact of the hole being improperly located. In the case of a blown out shot the flame might possibly come out thirty, forty or sixty feet, but I never saw anything to lead me to believe that the dust was inflamed. In the other case it would be a solid flame ignite on the coal and burn for possibly two or three seconds and go out.

Q. Who has charge of the electric equipment in the mines?

A. The mines have a wire man in each mine who looks after the wires, while the electrician at Monongah—who is located on the outside—looks after the repairing of the machines, pumps, etc.

Q. Who is he?

A. Homer Palmer is the electrician. They come under the jurisdiction of the mechanical department.

Q. In No. 8 are your gathering motors run directly to the face of the working places?

A. Yes, sir.

Q. Have you been through both mines since the explosion?

A. Only partially.

Q. Do you notice a larger quantity of loose coal and dust in the mine now than when last in there prior to the explosion?

A. Yes, sir; a very much larger quantity.

Q. How do you account for it?

A. It might be accounted for in several different ways. One way would be the upsetting and wrecking of loaded trips and the force of the explosion grinding off the sharp corners of the coal that projected, and gathering up the loose pieces of coal and grinding them against the ribs and roof as they went through.

Q. In any mines under your jurisdiction do you follow the practice of wetting the rooms?

A. No, sir.

Q. Do you have any service in your mines of water boxes or cars or tanks that would enable you to water the rooms?

A. We have watering cars at most of our mines.

Q. Where do these cars place the water?

A. They spray the bottom out from the side about the width of the head ing—about ten feet.

Q. Do you have any water cars that would spray the roof and ribs?

A. One.

Q. How is it operated?

A. With a pump and nozzle.

By Prosecuting Attorney Lowe: Q. This mining of the coal by undermining before the shooting, was formerly done by pick work?

A. Possibly so; I am not able to say; the introduction of the machines came before I did.

Q. The machines have been in use ever since you have been here?

A. Yes, sir.

Q. What is their advantage over pick work in mining?

A. I think the main reason why the undermining is not done by pick work is that the production of coal increases much more rapidly than, you might say, the production of miners. You could not get the miners to mine the coal

Q. Then it is a more rapid means of undermining?

A. Yes, sir.

Q. And thereby lessens the cost of mining?

A. Possibly so; I do not know certainly that it does. It provides a way that all coal can be mined whereby it could not be mined if you had to depend on pick work. Another thing, by the installation of coal mining machinery you have the advantage of making bigger coal.

Q. Would not the introduction and use of these mining machines materially increase the coal dust in the mines?

A. Possibly so; it is reasonable to say it would.

Q. Are there any other makes of these undermining machines besides the ones used in these mines?

A. Yes, sir.

Q. What are the different makes?

A. There are a number of different makes of the same type or class of machines that undercut with the same motion.

Q. What is the difference in the method of loosening the coal?

A. There is one that is called the chain cutter, that cuts the coal as it passes around, while the other is a punching machine that punches it in about the same manner as the miner who digs his coal with a pick.

Q. Does that character of machine create as much dust as the chain machines?

A. It would hardly be supposed it would. However, I have not used a great many of these machines.

Q. The coal taken out by a chain machine, as a matter of fact, is of a very fine character, is it not?

A. Yes, sir; fine coal.

Q. How far does the cut extend under?

A. Different lengths; the ones we use are set for seven feet, but they hardly ever cut the full distance; on an average six and a half feet to six feet eight inches.

Q. How high?

A. Four and one-half inches.

Q. In an ordinary room—in undermining the coal—what amount of that fine dust is made?

A. A small car load of dust; about two tons.

Q. Could a man with a pick undermine that with as small an amount of cutting as the machine?

A. No; not less than two one-half times; possibly three times.

Q. But that cutting would be of a coarser character than the other?

A. Yes, sir.

Q. Something like slack?

A. Well, you might class it as pea coal or nut coal. You would get more pea and nut out of pick than machine cuttings.

Q. Following the usual method employed in taking up this dust as you employ it there, could you give an estimate of the amount of that fine dust that would still be left on the floor of the room?

A. No, sir.

Q. There would be some?

A. Yes, sir.

By District Inspector LaRue: Q. Had you any knowledge of a local explosion that occurred in one of these mines?

A. Nothing more than I heard of a runaway trip that went into No. 6.

Q. And that explosion was never reported to you?

A. No, sir.

Q. You spoke of some points you directed to be watered—points that had the appearance of becoming dusty and dangerous. What points were they?

A. Right along below the F face heading, about where the motor was found in No. 6, if I remember the two points right.

Q. Do you know whether they were watered?

A. No, sir; I do not.

Q. Have you any knowledge of any part of the mine being watered since then—I mean personally?

A. No, sir.

Q. What is the difference between coal dust and dust generated in coal mines?

A. None, unless it was generated out of the slate or some other material that might be there. There would be a difference between the dust generated out of the slate and that generated out of the coal.

The hearing at this point was adjourned until tomorrow morning at 9 o'clock.

## MORNING SESSION, JANUARY 9, 1908.

First came WILLIAM SLOAN, a witness of lawful age, who, being first sworn, testified as follows:

**Testimony of William Sloan.**

Examination by Mine Inspector Paul:

Q. Where do you live?

A. At Monongah.

Q. What is your occupation?

A. Coupler at No. 6 mine.

Q. How long have you been acting as coupler at No. 6?

A. Five months.

Q. You couple the rope onto the cars at the slope?

A. Yes, sir.

Q. Were you in No. 6 mine some weeks before the explosion of December 6th, when four empty cars ran away?

A. Yes, sir.

Q. Where were you when the cars ran into the mine?

A. In the shanty, eating my dinner.

Q. Was there any ignition of the coal dust—any flame?

A. A short circuit from the wires.

Q. But did it cause a flame which traveled along the entry?

A. I could not see it; I was in the shanty.

Q. Did you see any light from the short circuit?

A. Yes, sir.

Q. Do you know if it fused the wires?

A. Yes, sir.

Q. Do you know, or have you any information from others who were out in the entry, as to whether or not there was any flame of fire in the entry?

A. Only where the wreck was; the coal was afire—the roof.

Q. Did you notice afterwards any evidence of there having been any fire there?

A. Only the charred coal.

By Mr. Alexander: Q. The shanty was at the bottom of the slope?

A. Yes, sir.

By District Inspector LaRue: Q. How far below the shanty was it that you noticed the charred coal?

A. Ten or fifteen feet inside the motor shoot.

Q. How far from the shanty door?

A. Twenty-five or thirty feet.

Q. You noticed it was charred?

A. Yes, sir.

By Prosecuting Attorney Lowe: Q. That is the only accident or explosion you know of, prior to December 6th?

A. That's all, I guess.

Q. Had there been any other runaway trips or small gas explosions or dust explosions?

A. There were eight loaded cars broke loose, but I don't know how long ago it was. They broke loose on the knuckle of the tippie.

Q. Were you there then?

A. I was outside coupling at the time. They did not go clean to the bottom.

Q. Wrecked on the slope?

A. Yes, sir.

By Mine Inspector Paul: Q. When was it these four empties ran into the mine?

A. About seven weeks ago.

Q. From this time?

A. Yes, sir.

Q. Three weeks prior to December 6th?

A. Yes, sir.

By District Inspector LaRue: Q. Have you any knowledge of that motorman who was killed coming to you and saying that he was afraid to run fast through that dusty heading—afraid of explosions?

A. No, sir.

Q. You don't know anything about that?

A. I never heard him say that; no, sir.

A. Are you aware that the heading was dusty?

A. Yes, sir.

Q. And dangerous?

[Not answered.]

By Mr. Alexander: Q. Was there any noise at the time of this short circuit, like an explosion?

A. Not that I could tell; I was in the shanty; I couldn't tell only as the cars came down; it was over with when they pulled the switch.

Next came JOHN TALBOTT, who, being first duly sworn, testified as follows:

### Testimony of John Talbott.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. At Monongah.

Q. What is your occupation?

A. Shipping clerk.

Q. Were you there on December 6th?

A. Yes, sir.

Q. Were you engaged in a telephone conversation with a Mr. Knight on December 6th?

A. Yes, sir.

Q. Had you occasion to leave that telephone hurriedly?

A. I was talking to Mr. Knight in regard to some railroad cars at the time of the No. 8 explosion. He started to ask me something else, but I didn't listen. I set the telephone to one side and started out. I just raised up my telephone when I saw No. 6 beginning to smoke.

Q. Where is your office?

A. Between the company's store and their office.

Q. How did you get information that No. 8 was blown up?

A. By the flash and fire and report; I heard the report; I can see No. 8 tipple and the trestle and No. 6 pit mouth.

Q. From your office did you see No. 8 mine?

A. Not at the opening.

Q. Were you looking in that direction?

A. My telephone was in that direction. The telephone is on the right hand side and I was looking toward No. 8. When the explosion occurred I set it down on the right hand side and raised up and I saw No. 6 begin to smoke, after the report from No. 8.

Q. Was there any concussion or jar of the building?

A. Yes; I heard one report only.

Q. Was that at No. 6 or No. 8?

A. No. 8.

By Mr. Alexander: Q. Is there a bay window in your office—a round window—one facing toward No. 6 and one toward No. 8?

A. Yes.

Q. What did you see from your office in the direction of No. 8?

A. I saw an immense amount of smoke and a report and flash.

- Q. Did you see any timbers?  
A. No, sir.  
Q. You turned around then and saw it coming out of No. 6?  
A. Yes, sir.  
By District Inspector LaRue: Q. What was the color of that smoke at No. 8?  
A. It was black.  
Q. And at No. 6?  
A. Kind of black and white mixed.  
Q. Did you notice how long it came out from No. 6?  
A. No, sir.  
Q. What was the length of time from the time you saw it at No. 8 until you saw the smoke at No. 6?  
A. Four or five seconds.  
By Mr. Alexander: Q. You couldn't see the mouth of No. 8?  
A. No, sir.  
By District Inspector LaRue: Q. And you think it was three or four seconds between the explosions?  
A. Yes, sir.
- 

Next came FRANK MORRIS, who, being first sworn, testified as follows:

### Testimony of Frank Morris.

- Examination by Mine Inspector Paul:
- Q. Do you live at Monongah?  
A. Yes, sir.  
Q. What is your occupation?  
A. Clerk in the office of the Fairmont Coal Company.  
Q. Were you there December 6th?  
A. Yes, sir.  
Q. Did you see No. 6 and No. 8 mines explode?—see any evidence of it on the outside?  
A. Yes; I saw evidence of it.  
Q. Where were you?  
A. In my office.  
Q. Did you see either mine from your office?  
A. No, sir.  
Q. How did you know the explosion occurred? Did you feel any jar?  
A. Yes; I felt a jar and I ran to the front and saw the smoke coming out from the pit mouth.  
Q. Could you determine which mine exploded first?  
A. No, sir.  
Q. Where did you then go?—to which mine?  
A. I went to No. 6 first.  
Q. Did you see Mr. Knight at No. 6?  
A. I don't remember seeing Mr. Knight at that time.  
Q. Did any person give you a piece of coupling pin?  
A. Mr. Knight brought a piece to my office.  
Q. When?  
A. On the afternoon of the explosion.  
Q. Will you examine this piece of coupling pin and state whether it is the pin he delivered to you?  
[Here witness is handed a piece of coupling pin.]  
A. Yes; I think it is.  
Q. Was it in that condition when delivered to you?  
A. No, sir; it was straight.  
Q. And it is now bent?  
A. Yes, sir.



Next came CHARLES DEAN, who being first duly sworn, testified as follows:

### Testimony of Charles Dean.

Examination by Mine Inspector Paul:

Q. What is your occupation?

A. Outside foreman.

Q. Where?

A. At Monongah No. 6.

Q. For the Fairmont Coal Company?

A. Yes, sir.

Q. How long have you been outside foreman?

A. For the Fairmont Coal Company?

Q. Yes.

A. Six years.

Q. Did you have charge of the live stock in the mine?

A. Yes, sir.

Q. Do you have a system of reporting and keeping a record of the live stock?

A. No, sir.

Q. In case of an animal being killed or injured, are you given a report of it?

A. No; I report to the superintendent and the stable boss reports to the superintendent in writing. I make no written report at all.

Q. If an animal is killed it is brought to your attention?

A. Yes.

Q. Do you know of any horse having been killed in No. 8 by any cause a few days before the 6th of December?

A. No, sir.

Q. Do you know of any animal having been burned?

A. Yes.

Q. When was that?

A. I don't know exactly. It was about a month before this last explosion.

Q. What was the nature of the burn?

A. He had his hair singed and his ears burned.

Q. Do you know which part of the mine that occurred in?

A. I do not.

Q. Do you know who the driver was?

A. No, sir.

Q. Does your duty require you to go in the mine?

A. Sometimes; to look after machines, or pipe, or anything.

Q. When were you in No. 6 and No. 8 prior to the explosion?

A. I couldn't say.

Q. Have you been in since the explosion?

A. Yes.

Q. What do you consider the conditions of those mines now in respect to being dry or dusty?

A. They were dry when I saw them—along the main heading. I was not off the main heading.

Q. Are they more dry now than they were when you were last in the mines prior to the explosion?

A. Yes, sir.

By Prosecuting Attorney Lowe: Q. Was that a horse or a mule that was burned?

A. A horse.

Q. Do you know of any mule being burned about a week before this explosion?

A. No, sir.

Q. Do you know a man named John Ham?

A. Yes, sir.

Q. He worked in No. 8?

A. Yes, sir.

Q. Was he killed?

- A. Yes, sir.
- Q. Did you meet him at the pit mouth a week or so before the explosion?
- A. No, sir.
- Q. What was his duty in the mine?
- A. He was a machine man, I think.
- Q. Did he ever handle a mule in there?
- A. I think he did. He ran a machine and they used a mule.
- Q. Is it not true that his mule got burned a week before the explosion?
- A. Not that I know of—I never heard of it.
- Q. You don't know anything about his being at the pit mouth with a mule wrapped in a blanket?
- A. No, sir.
- By Mr. Alexander: Q. How many head of stock were there at No. 8 at the time of the explosion?
- A. I do not know.
- Q. Do you know where the derailing switch is outside of the mouth of No. 6?
- A. Yes, sir.
- Q. Do you know who had charge of that switch prior to the explosion?
- A. Yes.
- Q. Who?
- A. Mr. Leonard.
- Q. Who put him in charge of it?
- A. I did.
- Q. Do you know when the switch was put in?
- A. Not exactly.
- Q. How long ago?
- A. About a year and a half ago.
- Q. How soon after that was he put in charge?
- A. As soon as it was put in.
- Q. Do you remember of Mr. Leonard complaining to you about having too much to do to take care of that switch?
- A. No, sir.
- Q. Where were you at the time the explosion occurred?
- A. I was in Mr. Ruckman's office.
- Q. Could you see from that office either one of the pit mouths?
- A. No; not from his office.
- Q. Did you get out of the office in time to see the explosion from either mine?
- A. The explosion was on when I saw it.
- By District Inspector LaRue: Q. Did you look toward No. 6 after you went out of your office?
- A. Yes, sir.
- Q. What did you see?
- A. I saw the mine blowing out of the shaft.
- Q. What was the color of the smoke?
- A. Some white and some black.
- Q. How long did it continue to blow?
- A. Five minutes.
- Q. During that five minutes was there any cessation or was it a continuous blast?
- A. It just went up and down. It blew all the time but sometimes it blew up higher than others.
- Q. It kept a continual blowing?
- A. Yes, sir.
- Q. What did you observe at No. 8?
- A. I didn't see No. 8.

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Next came CHRISTIANA CERDELLI, who being first sworn, testified as follows:

## Testimony of Christiana Cerdelli

Examination by Prosecuting Attorney Lowe:

Q. Do you live at Monongah?

A. Yes, sir.

Q. Where?

A. At No. 3, across the railroad.

Q. Is that on the same side of the river that No. 6 and No. 8 mine are?

A. No, sir; this is across the river.

Q. Is it between No. 6 and No. 8?

A. Yes; on the left.

Q. How far from No. 6 and No. 8?

A. Now, I never measured it but I am quite between each one.

Q. Do you mean half way between?

A. Yes, sir.

Q. Can you see No. 6 and No. 8 mines?

A. Yes, sir; both of them.

Q. Where were you the morning the explosion occurred?

A. I was at the door.

Q. The door next to the river?

A. Yes, sir.

Q. Did you see the smoke coming out of the mines?

A. It was No. 6 first.

Q. Did you see the smoke come out of both mines?

A. Yes, sir.

Q. Which mine first?

A. No. 6.

Q. Did you hear any noise just before the smoke?

A. Yes, sir; the noise came first and then the smoke, at No. 6, and about two minutes after that at No. 8.

Q. Did you see any fire?

A. Just No. 8—the most of it—No. 6 not very much, because it is in the hollow; can't see it very much.

Q. But the fire—did you see any of that?

A. Yes, sir.

Q. Where?

A. At both of them.

By District Inspector LaRue: Q. How high did the flame go up at No. 6?

A. I can't hardly tell.

Q. You saw the flame at No. 8?

A. Yes, sir.

Q. How long did it continue?—how many minutes?

A. Five or six minutes.

Q. You are sure that was flame?

A. Yes, sir.

Q. Flame steadily going up?

A. Yes, sir.

By Mine Inspector Paul: Q. You can see another opening right across from you?

A. Yes, sir.

Q. Did the smoke come out of that opening before it came out of No. 6 and No. 8?

A. It came out of No. 6.

Q. But how about the opening right across from where you live—right opposite your home? Did you see the smoke coming out of there?

A. There are two or three places the smoke comes out. It is right under the Catholic church.

By Mr. Alexander: Q. How old are you?

A. Seventeen years.

Next came BEN KOON, who, being first duly sworn, testified as follows:

### Testimony of Ben Koon.

Examination by Mine Inspector Paul:

Q. Do you live in Monongah?

A. Yes; at the upper part of town.

Q. Do you work for the Fairmont Coal Company?

A. Yes, sir.

Q. What do you do?

A. I am stable boss.

Q. Do you know of any horses or mules being burned in the mines at Monongah?

A. Yes; when the explosion was.

Q. But before that?

A. One horse was scorched a little in October.

Q. How much?

A. Well, he could have worked right along.

Q. Was the flesh burned?

A. No, sir; just scorched.

Q. Was the hair scorched?

A. Yes, sir.

Q. That wouldn't keep it from working, would it?

A. I said he could have worked.

Q. Do you know where that happened in the mines?

A. No, sir.

Q. Was it No. 6 or No. 8?

A. No. 8.

Q. Who was driver?

A. I think it was Mr. Stubbs.

Q. Were you summoned here?

A. No, sir; I was notified to be here.

Q. Do you know why Mr. Stubbs is not here?

A. No; I saw him this morning at his father-in-law's when I came to the car.

Q. Is that the only animal you know of being burned about the mine before the explosion?

A. Yes, sir.

Q. Do you know about a mule being burned?

A. No, sir; there was none.

By District Inspector LaRue: Q. Is the man that was driving the horse the day he was burned still living?

A. Yes; he worked for us the next day.

Q. He was not killed by the explosion?

A. There was no explosion.

Q. I mean the last explosion?

A. No; he was not working that day. I saw him this morning.

By Mr. Alexander: Q. How many head of live stock were in No. 8 on the day of the explosion?

A. Eighteen.

Q. How long had there been that many?

A. I had nineteen on the first day of November, but one was ruptured and died the 3rd of November. We had eighteen the day of the explosion—ten horses killed and four mules; that left two mules and a cart mare and another mare that they worked for different things.

Q. So between the 3rd of November and the 6th of December you had not lost any horses or mules?

A. No, sir.

By Prosecuting Attorney Lowe: Q. Had you lost any just before the 3rd of November?

A. A mule that was caught between a trip and the rib. It was crippled and died the 7th of October.

Next came HARRISON MARTIN, who, being first duly sworn testified as follows:

### Testimony of Harrison Martin.

Examination by Mine Inspector Paul:

Q. You work at Monongah?

A. Yes, sir.

Q. In which mine?

A. No. 8.

Q. How long had you worked there before the explosion?

A. About two years.

Q. In what capacity?

A. Motorman.

Q. How long before the explosion had you been in the mine last?

A. Just one week.

Q. Had you stopped working at No. 8?

A. No, sir; I was sick.

Q. During the time you worked there have you encountered any gas?

A. There was no gas in the main headings where I worked; there was some in other parts, but not much.

Q. In what part of the mine did you work?

A. Main heading.

Q. Had you known of its collecting in sufficient quantities to ignite, causing a small explosion?

A. Sometimes it would ignite just a little.

Q. Light and run along the top of a room?

A. Very little—just merely make a light. That has been over a year ago since I noted that. I was working in the main road and there was no gas there.

Q. How was the ventilation?

A. The air was good.

Q. How about the coal dust?

A. There was none in the road where I hauled. I know nothing about the butt headings.

Q. How was it kept off the road where you hauled?

A. Kept off pretty good. You couldn't tell much about it for it was froze up. You couldn't tell whether it was dusty or not. It was wet in some places.

Q. It was your duty to haul out the coal?

A. Yes, sir.

Q. Would not the coal dust sift through the cars and fall off the top?

A. Most likely it would the least bit, but not enough to hurt, I don't think.

Q. What means were used to keep this accumulation of coal dust down?

A. They had a water bailer every night. Whether he watered it in the butt entries I don't know.

Q. In what condition did you find the haulways where you worked?

A. In pretty good condition.

Q. Did you ever notice them having been watered?

A. Yes; they watered it about once a month—the main haulage where I worked.

Q. During the time you worked there do you know of any explosion of gas or coal dust?

A. No, sir.

By Mine Inspector Paul: Q. What do you know as to the mine being watered recently before the explosion?

A. I will say it was watered two weeks before—the haulway where I worked.

Q. You had not worked the week prior to the explosion?

A. No, sir.

By District Inspector LaRue: Q. How about the room when you worked there last? Was it dry?

A. It was in pretty good shape, as far as I recollect.

Q. What is your idea of the ventilation?

A. It was good on the main heading where I worked. I know nothing about the butt entries.

- Q. You heard no complaints about gas or bad air?  
A. No, sir.  
Q. Do you know of any of the motormen complaining of the dust?  
A. No, sir.  
Q. You say you worked in No. 8?  
A. Yes, sir.
- 

Next came GEORGE HARRISON, who, being first duly sworn, testified as follows:

### Testimony of George Harrison.

Examination by Mine Inspector Paul:

- Q. Where do you live?  
A. In Columbus, Ohio.  
Q. What is your vocation?  
A. Chief inspector of mines in the State of Ohio.  
Q. Have you been around mines No. 6 and No. 8 since the 6th of December?  
A. Yes, sir.  
Q. In company with whom?  
A. With yourself and your district inspectors, principally, and a portion of the time with mine inspectors from Pennsylvania and the officers of the Fairmont Coal Company (I can't remember their names), and three of our district inspectors from Ohio.  
Q. After making an examination of these two mines did you make a report?  
A. Yes; I made a report to you.  
Q. Will you please examine this paper and state if it is the report you made? [Here witness is handed a paper.]  
A. Yes, sir.  
Q. To whom was the report made?  
A. To yourself.  
Q. Signed by whom?  
A. Myself, George Harrison, chief inspector of mines, Ebenezer Jones, inspector of the Fourth district; W. H. Turner, inspector of the Fifth district, and W. N. Miller, inspector of the Seventh district, in Ohio.  
Q. Did you file that report as a part of your evidence?  
A. Yes; we filed this report with the expectation that that was all we would have to do, but we have recently been called to come here.  
Q. Mr. Harrison, what has been the extent of your mine experience?  
A. About fifty-four years.  
Q. Have you worked in or had charge of mines in which explosive gas was liberated?  
A. Yes; I was raised in gaseous mines, nearly. I went to work at eight years of age and worked in gaseous mines in England.  
Q. Have you examined mines in which there have been explosions prior to your visit to the Monongah mines?  
A. Yes. Not very extensively, but I have examined mines where there have been explosions.  
Q. At whose instance did you come to Monongah?  
A. At the instance of the Governor of our State—Governor Harris. He requested myself, as the head of the department, to come to Monongah and offer our assistance to the mining department of West Virginia and to gain all the information possible in regard to the explosion, in order that it might be useful in compiling new laws in our state.  
By District Inspector LaRue: Q. At what time did you enter the Monongah mines after the explosion?  
A. I think on the Wednesday following the explosion.  
Q. About five days after the explosion?  
A. Yes, sir.  
Q. You are not familiar with the first condition at that slope? You stated in your report that fifteen cars ran away.

A. That's the information that we got from various persons—some putting it at twelve cars, some at fourteen and some at sixteen cars.

Q. Are you now aware that nineteen cars ran away?

A. No, sir; possibly there might have been. We make the statement as having been reported so.

Q. Had you been there and seen those headings closed don't you think you would have to arrive at some other conclusion than what you have?

A. I don't know what you refer to.

[Here the report above referred to was read to the jury in the words and figures following]:

"STATE MINE DEPARTMENT.

Columbus, Ohio.

"December 31, 1907.

"To Hon Jas. W. Paul,

Chief Inspector of Mines,

Charleston, West Virginia:

"Dear Sir:

"On the 16th inst., following the mine explosion at the Monongah mines, which took place on the 6th, and the removal of the most of the bodies of the unfortunate victims, we started an inspection of those mines with a view of ascertaining all that we could as to the causes leading to such a fearful calamity, and in keeping with your desire we herewith submit to you our observations and conclusions on the matter:

"Both mines were indisputably equipped with modern fans and machinery capable of furnishing more than double the amount of air current necessary to make all parts of the mines perfectly safe from a standpoint of ventilation, but on account of the general destruction, accumulation of wreckage and falls of roof, it was practically impossible to decide whether on the day of the explosion, and prior to that, the ventilating current was properly conducted and distributed through the inner chambers of the mine and the old abandoned workings where the elements of greatest danger are usually lurking.

"In a number of instances we noted that working places—both rooms and headings—especially in No. 8 mine, were driven a long distance beyond what is known as the 80-foot limit between the breakthroughs. We understood also that the mines were not in operation the day previous to the explosion.

"It is reasonable to assume that in the quiet of the mine—especially if the barometer was low and weather conditions favorable—gas would generate and ascend to the highest and most favorable points and would remain there until disturbed by the action of moving bodies and diluted by a mixture of common air.

"About the time of the explosion it is said a trip of fifteen loaded mine cars—liberated by the breaking of an iron coupling pin—ran back 1200 feet on an eight per cent down grade and wrecked at the bottom of the No. 6 slope, tearing down the electric wires and causing a short circuit, instantly throwing out the circuit breaker.

"We made a very close inspection of this wrecked trip, and of its surroundings, and failed to find any evidence of fire or of any justification for the belief that the explosion originated at that point or by contact of the electric wires. Had the explosion started there it would have been demonstrated by a wreckage at the outer end of the No. 6 slope, being close to the mouth of the opening, and by far the point of least resistance. There was no evidence of force between the outer end of the wrecked trip and the mouth of the slope, as three men were found dead in a toll-shanty close to the outer end of the wreck without bearing any marks of violence.

"If the runaway trip occurred just previous to the explosion, which seems to be the general statement of those present, then we have no hesitation in saying that it may have played an important part in making the explosion possible. It can well be imagined how fifteen loaded cars, weighing four or five tons each, running uncontrolled 1200 feet down an eight per cent grade into a mine opening which was the inlet of air, would cause such an extremely abnormal force as to raise the dust in the aid and dislodge the latent gasses in the most remote parts of the old workings in all sections of the mine, and drive these elements of danger on the open lamps of the miners in their working places. It is evident, too, from the

report on the fire boss's bulletin board at the mouth of No. 6 mine that traces of gas were found in several places on the morning of the explosion, but during our whole investigation we found very few traces of gas in either mine.

"If the runaway trip and the explosion were simultaneous, the wreck almost blocking the No. 6 opening might have prevented the destruction of the mine opening, but as at No. 8 mine the force of the explosion could have found relief in a destruction of the return airway and the No. 6 fan, which remained intact, only slightly disarranging the fan house by the concussion. Remembering that there is a gradual rise of the coal vein from the No. 6 to the No. 8 mine and that the elevation of No. 8 mine is said to be fifty feet, it is but natural to assume that any light gasses and fine dust disturbed by heavy falls of roof or high speed haulage system would drift in the direction of No. 8 workings and lodge at the highest available points in every part of the mine.

"The interior of each mine is reached and developed by seven (7) parallel main headings running west, the distance between the two sets of headings being about 4,000 feet, and the connection between the two mines made by three north and south headings. The connection is said to have been closed by stoppings and doors, each mine having an independent system of ventilation.

"Notwithstanding that every person in No. 6 mine was lost, the terrible fierceness and destructiveness of the explosion is much more apparent in No. 8 than in No. 6 mine, the greatest force coming from the inner workings and leading outward, increasing in force and volume as it swept the dust laden headings leading to the No. 6 opening.

"We noticed many evidences of great want of skill or practical experience in the locating and drilling of holes, as well as the want of judgment in the use, and in many instances the very excessive use, of blasting powder, and in two particular instances blown out shots were found where all the surroundings would justify the opinion that an explosion had taken place at both points, namely: A point known as No. 1 right air course to main West heading. In the face of this heading a seven foot cut was made in the coal and one blast had been fired, the hole having been drilled very high and pointing upward, the blast blowing off a portion of the coal, leaving two feet of the hole and failing to break down the coal which it was intended to remove. The coal from the blast was thrown back a distance of twenty-five or thirty feet, and the coal charred and much dust in evidence around the face of the heading, as if an explosion had taken place. There was an entire absence of any sign of anyone having been in the place after the blast. The miners' tools were lying in the breakthrough leading to the parallel headings about twenty-five feet back—just as if they had been placed there by the persons for safety while firing the blast. The heavy iron track rails with parting through the breakthrough were twisted and torn and thrown outward for twelve or fourteen feet, and the body of the miner who had evidently been in the breakthrough waiting for the blast, was scattered around in the breakthrough to the parallel entry and outside of the breakthrough, in a dozen or more pieces, and had been overlooked by the exploring party one week previous when they found the body of a man in the face of a parallel heading twenty-five feet inside of the breakthrough, who had been shielded from the force but died from the concussion or after damp. All indications were that the force was outward from the face of the heading where the blast had taken place.

"Another blown out shot had occurred in room No. 31 of second right off first South heading. The hole was drilled towards and bearing on the left rib of the room. The front of the coal was blown off, but three feet, nine inches of the hole remained. The coal was somewhat charred on the side of the room near the outer end of the drill hole. The coal from the blast was slashed against the pillar opposite the neck and the room two feet back and coal on pillars greatly charred showing signs of fire from explosion. On the same heading at No. 27 room neck, a five-ton gathering motor and a number of empty cars were thrown across the track and piled up by the force of the explosion, which was strongly in an outward direction. The motors and cars supposed to have been going in at the time undoubtedly met the force of this explosion. The above are only two out of a number of instances showing that blown out shots are rather a common occurrence and that life and property are always in danger under such conditions and circumstances.



There will no doubt be many theories as to the cause of the explosion—all more or less sustained by facts—but no one is left to tell the tale or give any reliable fact information as to the conditions of the mines or defects of the ventilation in the inner working places, or the dangers that existed on the morning of the explosion resulting from roof falls or other causes during the previous day when all work in the mine was suspended. It is more than doubtful if ever the real or original cause will be known.

"It is our opinion that the explosion may have occurred in either mine, and could have been caused by a miner's lamp coming in contact with gas, or by a blown out shot, raising and igniting the gas, but the effect of the greater force is most visible at the heading of the leading heading on the No. 8 side. At a point near the connection of the two mines there has been a whirlwind of force and destruction, and a division of the force is evident—going both towards No. 6 and No 8 territory—increasing in volume by a series of new explosions or reinforcements fed by great accumulations of coal dust, spreading destruction in every part of the mine, unless where its force was diminished by the presence of water or dampness, or the absence of coal dust.

"What ever may be the conclusions of theorists and experts, suffice it to say that from a practical standpoint, at the time of the explosion, both in West Virginia and in other states or wherever they may occur, they cannot occur except where there is an accumulation of those destructive elements sufficient to cause such appalling results and a favorable opportunity for setting them in motion. In olden times such awful catastrophies were looked upon as a visitation of the vengeance of a Supreme Power, and yet some people even at this day say they are unavoidable. It is impossible for such things to occur if a proper knowledge of the accumulating dangers is possessed by those in authority looking after the inside of mines and they exercise the necessary diligence to steer clear of that point of danger, if the necessary facilities are provided for doing so.

"We feel that the sacrifice of over six hundred lives by mine explosions in Pennsylvania, West Virginia and Alabama during the present month ought to stir the loyal sensibilities and teach a never-to-be-forgotten lesson to those connected with mines, prompting every possible precaution against such calamities. We are not disposed to criticisms, and particularly not in an unfriendly way, but we are not clear as to the advantages to be derived from the system of driving seven parallel main headings. It is clear, however, from what we have all seen, that in the Monongah case they acted as storage chambers for mine dust which we consider is one of the greatest sources of danger at those mines. The great evil of connecting mining properties is also forcibly presented in this case by doubling the number of the dead. In the annual report issued by the department in 1904, we wrote a rather strong comment against the dangers and evils incident to the connecting of mining properties, and closed with the following paragraph:

"We fear that if there is not some check in this direction and more care exercised about the connection of mining properties, that the time is not far distant when the subject will be presented to the people in such a serious aspect that a prohibitory law will be enacted."

"Close observation and striking recent events justify the further prediction that if the general conditions of operating mines in the various states is not soon covered by adequate Federal laws, that the sacrifice of human life in the mines has merely just begun.

"In conclusion we desire to express our appreciation of the favors and many kind courtesies extended to us by yourself and your assistants while at Monongah.

"Yours very truly,

"GEORGE HARRISON,

"Chief Inspector of Mines.

"EBENEZER JONES,

"Inspector Fourth District.

"W. H. TURNER,

"Inspector Fifth District.

"W. N. MILLER,

"Inspector Seventh District."

By Mine Inspector Paul: Q. The report just read is your report and that of your inspectors named?

A. Yes. I would like to say that when we wrote that report we had no knowledge that it would be submitted here. We wrote it for the benefit of your department.

By Mr. Alexander: Q. What portion of the mine did you visit?

A. We visited the No. 8 mine pretty generally, and in No. 6 we visited the main heading and entries and the portions leading to No. 8.

Q. You visited the portions showing evidences of fire?

A. We found evidences of fire.

Q. What did you find to be the condition of the ribs where you found fire?

A. We found the charred dust and occasionally the coal was charred. We found a good deal of dust that seemed to be thrown against the ribs—as if thrown from a mason's trowel—and charred.

Q. You also found charred coal?

A. Yes; slightly charred.

Q. Did you find a coke formation on the pavement of the mine in some points?

A. No, sir.

Q. Did you find it on the ribs?

A. Yes; away from the floor.

Q. And on the roof?

A. Yes; near the roof.

Q. In the formation making this charred coal and making the coke deposit, would there not be gasses given out in that process?

A. There might have been.

Q. When you make coke there is gas given off?

A. Yes; but in the mine the charred coal was from the burning—from a fire following an explosion.

By District Inspector LaRue: Q. If an explosion were to occur in an entry where there were 1,300 or 1,400 feet of air, and the door in the rear was closed immediately after the explosion, what would be the condition at that point after the explosion.

A. If there was no oxygen the flame would be extinguished.

Q. We speak of the door being closed immediately after the explosion. What would be the effect of closing that door?

A. The air-way would be blocked. If you close the door there would be no current of air.

Q. What would be the condition if the explosion had taken place? What would be the result?

A. If you cut off the oxygen the flame would be extinguished.

Q. What would be the result in the dust and flame that is rapidly passing inward? Do you mean that the flame would cease?

A. If there was no oxygen.

Q. If the heading was full of oxygen?

A. As long as there was oxygen there would be a continuation of the flame.

Q. If the combustion is going forward and oxygen is practically cut off in the rear—would there be a rapid passing away from that point or a cessation of the explosion at that point?

A. If there was oxygen beyond that to supply the combustion it would continue.

Q. Would it be a rapid or slow process—the continuation?

A. It would depend on the elements of combustion and the amount of oxygen.

Q. We will say that the air is heavily laden with oxygen in advance of the explosion. What would be the condition?

A. I cannot understand the question. If there was air beyond where the air was blocked I think the explosion would continue, if there was oxygen to sustain it.

Q. Would there be a more rapid continuation by reason of the door being closed in the rear?

A. No; I don't think so.

Q. You say in your report you made the examination on the 16th?

A. Yes. You asked when we were in No. 6. We were in there the Wednesday following the explosion.

Q. Your examination commenced on the 16th?

A. Yes.

By Mr. Alexander: Q. Had you ever been in these mines previous to this explosion?

A. No.

Next came EBENEZER JONES, who, being first duly sworn, testified as follows:

### Testimony of Ebenezer Jones.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Martins Ferry, Ohio.

Q. What is your occupation?

A. State deputy mine inspector of the Fourth mining district.

Q. How long have been an inspector?

A. A year ago the 15th of last September.

Q. I hand you here a report made to myself, which bears your signature, together with several others, one of which is Mr. George Harrison. Will you look at the report and state if it was signed by you?

[Here witness is handed the report heretofore filed and copied as Harrison Exhibit No. 1.]

A. Yes; that is the report I signed.

Q. Do you corroborate the contents of that report?

A. Yes, sir.

Q. What has been your experience in mining?

A. I have been connected with mines since 1874 with the exception of seven years.

By Prosecuting Attorney Lowe: Q. Have you any information since you have made this report that would cause you to change any of the opinions or conclusions reached in that report, or make any different statements?

A. No, sir; I don't know that I have heard of anything that would cause a change in my opinion. In fact I have had no additional.

By Mr. Alexander: Q. Had you ever visited these mines prior to the explosion?

A. No, sir.

By District Inspector LaRue: Q. At what date did you enter the mine after the explosion?

A. On Wednesday, December 11th.

Q. When did you first examine the condition at the bottom of No. 6 slope?

A. Wednesday afternoon.

Q. Were you aware that about half of that wreck had been cleared up previous to your coming?

A. I heard that part of it had.

Q. Are you aware now that there were nineteen cars instead of fifteen?

A. Just what I have heard. I heard the statement made since I have been in the court house.

Q. The main line was cleared up and in operation when you entered?

A. The line to the left was.

Q. The others had the wreckage on them?

A. Yes.

Q. You are not familiar with the first condition at the point of the explosion?

A. No, sir.

Q. If the flame had been produced at that point by a short circuit or lamp, and the ventilation had been cut off in the rear, then what would be the condition after the explosion?

A. That would depend on the condition of the elements of danger and the atmosphere.

Q. A large percentage of dust is there, and the velocity of air is 1,400 feet. I don't know what the velocity was at the pit-mouth, but to start with it is not less than 1,400 feet. Now what would be the condition after the explosion?

A. As I say, I could not tell the exact condition of the elements of danger.

Q. What would be the condition of the passing on of the flame?

A. It would depend on the amount of oxygen and combustion.

Q. Do you think the passing on would be a slow process or rapid?

A. It would depend on the conditions of the place.

Q. I think the conditions would be easily estimated. There is the size of the heading, and you have the velocity of the air. If the current was practically cut off at the time of the explosion what would be the condition afterwards?

A. I do not know that I could answer any better than I have.

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Next came W. H. TURNER, who, being first sworn, testified as follows:

### Testimony of W. H. Turner.

Examination by Mine Inspector Paul:

Q. Where is your home?

A. Cambridge, Ohio.

Q. And your occupation?

A. District mine inspector.

Q. How long have you been associated with coal mines?

A. Since I was eleven years old; forty-eight years.

Q. How long have you been an inspector?

A. Eleven years.

Q. Have you visited Monongah No. 6 and No. 8?

A. Yes, sir.

Q. Before or since the explosion?

A. Since.

Q. Had you been in mines prior to that?

A. No.

Q. Did you make an examination of the inside of mines No. 6 and No. 8 with a view of ascertaining the cause of the explosion?

A. Yes, sir.

Q. Did you make a report of that?

A. Yes, sir.

Q. Will you examine this paper and state if that is the report with your signature on it?

[Here witness is handed paper heretofore filed as "Harrison Exhibit No. 1," and copied.]

A. Yes, sir.

Q. Have you learned any additional facts that would induce you to change your opinion and the contents of this report?

A. No, sir.

By District Inspector LaRue: Q. In that report you state that fifteen cars ran down the slope. Are you now aware that there were nineteen?

A. I got my information from you, Mr. LaRue—that there were about fifteen. We were only guessing from what we had learned, as we couldn't count them.

Q. If an explosion had occurred and the air had been stopped in the rear, what would be the condition? Would there be a rapid passing away of the force or would it die out at that point?

A. I did not understand.

Q. I mean the cutting off of the air in the rear of the explosion—what would be the condition?

A. I hardly think that would be possible, if you mean between the mouth of the slope and the wreck.

Q. If the explosion occurred at the wreck—the explosion of dust—and the ventilation had been cut off in the rear.

A. It would probably stop the explosion.

Q. We are speaking of an explosion having taken place and the ventilation cut off in the rear. Would there be a rapid passing away of the explosion?

- A. If there was oxygen to feed the combustion it would continue.
- Q. You understand the combustion is in front of the explosion, but no oxygen in the rear. What would have been the condition?
- A. As long as there was oxygen it would continue.
- Q. You say, then, there would be a continuation of the explosion?
- A. My judgment tells me this: If the explosion occurred there the force would have been greater there than it was.
- Q. We have evidence that the explosion occurred there and there was a stoppage and the air didn't come out. It went in a short distance and didn't come out any distance. What would have been the result if ventilation had been cut off?
- A. I don't understand that the air would stop. If there was a vacuum made by the heat the air would rush in from the fan.
- Q. Do you say there would be a continuation of the explosion from that point?
- A. It is not impossible, if there had been oxygen in the mine. But I want to state this: the explosive power has equal force from every point of exposure.
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Next came W. N. MILLER, a witness of lawful age, who, being first sworn, testified as follows:

### Testimony of W. N. Miller.

Examination by Mine Inspector Paul:

- Q. Where do you live?
- A. Massillon, Ohio.
- Q. What is your occupation?
- A. Mine inspector for the Seventh district of Ohio.
- Q. How long have you occupied that position?
- A. Eight years.
- Q. What has been your mining experience?
- A. Nearly forty years before I went to be mine inspector.
- Q. Have you visited mines in which explosions occurred prior to your visit to Monongah?
- A. Yes, sir.
- Q. Had you ever visited the Monongah mines prior to the explosion?
- A. No, sir.
- Q. Have you visited the mines since?
- A. Yes, sir.
- Q. Did you make an examination of the mines with a view of determining the cause of the explosion?
- A. Yes; with Mr. Harrison.
- Q. Did you submit a written report?
- A. A joint report, yes.
- Q. Look at this and state if it is the joint report?
- [Here witness is handed the report heretofore filed as "Harrison Exhibit No. 1."]
- A. Yes, sir.
- Q. Have you obtained any recent facts that would cause you to change the opinions expressed in that report?
- A. No, sir.
- Q. Assuming that the trip ran into No. 6 mine and becoming wrecked blocked the entrance of the mine and the wreckage of the trip had stirred up a large amount of dust, and for some reason that dust had been ignited by a lamp or an electric spark and flamed the dust, which way would the explosive force travel—in the mine or out of the mine?
- A. I could not just say.
- By District Inspector LaRue: Q. Which way would the force travel when a gun is exploded?
- A. It travels out.
- 

Next came H. L. SLOAN, who, being first sworn, testified as follows:

### Testimony of H. L. Sloan.

Examination by Prosecuting Attorney Lowe:

Q. Where do you live?

A. Monongah.

Q. What is your occupation?

A. I work outside, cleaning the cars running into the tipple.

Q. At which mine?

A. It was No. 2; it is No. 5, now.

Q. Do you work at No. 2 tipple?

A. I work on the hill cleaning the cars.

Q. Where were you on December 6th—the day of the explosion?

A. Up on the hill.

Q. Were you in a position where you could see No. 6 and No. 8?

A. I was right in front of No. 6 and below No. 8. I had to look across the end of a point to see No. 8.

Q. Did you see any evidence on the outside of No. 6 or No. 8 that an explosion had occurred?

A. Well, what they call the stockway to No. 6—some call it the toad hole—that's the first place I saw anything.

Q. What did you see?

A. Smoke.

Q. Where did you next see smoke?

A. From No. 6 opening.

Q. Did you notice any smoke at No. 8?

A. Yes; lots of it.

Q. Did you feel the jar?

A. Yes; a heavy jar at No. 8 but no jar at No. 6 to amount to anything.

Q. At which mine did you notice the smoke first?

A. In the toad hole at No. 6.

Q. Was that before you heard the jar at No. 8?

A. Yes, sir.

By Mr. Alexander: Q. Where is that toad hole at No. 6?

A. To the right of the Polish church. The church is in a little hollow. It is up that hollow.

By District Inspector LaRue: Q. In your judgment how long did the smoke continue to blow out of No. 6?

A. It would go up and then kind of drop down again.

Q. It continued to come out all the time for some time?

A. For a little bit—I couldn't tell how long. I left as soon as I saw it. I started for home. I had two boys in there.

Q. What distance were you away from this point?

A. Any place from 400 to 500 yards.

Q. Were you in plain view of No. 6?

A. Yes; right in the face of No. 6.

Q. You couldn't see No. 8?

A. No, sir.

By Mine Inspector Paul: Q. Did you notice any flame at No. 8?

A. Yes, sir.

By District Inspector LaRue: Q. Did you notice any flame at No. 6?

A. The smoke came up so I couldn't see.

Q. What color was the smoke?

A. A whitish yellow color.

By Prosecuting Attorney Lowe: Q. When did you see the smoke at No. 8 opening in relation to the toad hole and mouth of No. 6?

A. I couldn't say how long it was between the two but only a minute or so.

Q. After or before you saw it at No. 6?

A. No. 8 was after, yes.

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Next came NICK SMITH, who being first sworn, testified as follows:

## Testimony of Nick Smith.

Examination by Prosecuting Attorney Lowe:

Q. You are a blacksmith at No. 6?

A. Yes, sir.

Q. How long have you been working there?

A. About three years.

Q. What were you doing at the time of the explosion?

A. Working at the forge.

Q. Did you see the runaway trip going down the slope into No. 6?

A. Yes, sir.

Q. When was that in relation to the time when you first noticed the evidence of an explosion?

A. I suppose that had been gone about half a minute or three-quarters.

Q. Was there anything happened to your electric appliances in the blacksmith shop to indicate that the trip had reached the foot of the slope?

A. Yes; the current went off.

By District Inspector LaRue: Q. How long did the smoke blow out of No. 6?

A. I couldn't say.

Q. You saw the smoke coming out?

A. Yes.

Q. How many minutes?

A. I couldn't say.

Q. What was the color of the smoke?

A. A kind of gray, with light and dark in it.

Q. Did you hear any of the men complain about getting something in their hair that they couldn't wash off?

A. No, sir.

Q. It didn't reach you where you were?

A. No, sir.

Next came LUTHER TOOTHMAN, who being first duly sworn testified as follows:

## Testimony of Luther Toothman.

Examination by Prosecuting Attorney Lowe:

Q. Do you work at Monongah?

A. Yes, sir; I am a carpenter.

Q. Where do you work?

A. At either place—No. 6 or No. 8.

Q. Where were you on the morning of the explosion?

A. At No. 2 tippie.

Q. Where is that with reference to No. 6 and No. 8?

A. Directly opposite No. 6.

Q. Were you in sight of No. 8?

A. No.

Q. Did you see any smoke come out of No. 8?

A. No.

Q. Did you notice the runaway trip?

A. No; I couldn't see it.

Q. What was the character of the carpenter work—inside work or outside work?

A. All outside work.

By District Inspector LaRue: Q. How long did the smoke continue to come out?

A. I didn't pay any particular attention to that.

Q. It was coming out when you noticed it?

A. Yes, sir.

Q. What was the color of it?

A. A kind of dirty white—something like steam and black mixed.

By Prosecuting Attorney Lowe: Q. Do you know anything about the safe condition of the mine?

A. No, sir.

Q. Do you know anything about any workmen having made complaint about the condition as to either mine?

A. No, sir.

Q. Do you know what particular part you were supposed to testify to here?

A. I didn't know I would be called at all until last night.

By Mr. Alexander: Q. Who had you summoned?

A. I don't know; on behalf of the state.

A recess was here taken until 1:30 p. m.

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AFTERNOON SESSION, JANUARY 9th.

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Next came J. S. REX, who being first sworn, testified as follows:

**Testimony of J. S. Rex.**

Examination by Prosecuting Attorney Lowe:

Q. You live up near Monongah?

A. Yes, sir.

Q. Were you up there on the morning of the explosion?

A. Yes, sir; I was at home.

Q. Is your home in sight of the openings of either No. 6 or No. 8 mines?

A. No, sir; but is in sight of the toad hole, I believe.

Q. Did you notice any evidence of the explosion at the time?

A. Yes, sir; I heard the report and felt the jar.

Q. There has been something said here about some horses or mules being burned in one of the mines shortly prior to the explosion. Do you know anything about an occurrence of that kind?

A. I do not know anything personally.

Q. Do you know a man by the name of John Ham?

A. Yes, sir.

Q. Who was employed in No. 8 mine?

A. I believe so.

Q. Did you hear anything about his mule being burned?

A. I heard him and his wife say something about it.

Q. When was it the accident should have taken place?

A. I don't know; it was sometime before the explosion, possibly a week or ten days or something like that.

Q. What was your information about that?

A. He told me that there had been a small gas explosion that had burned the hair off the mule.

Q. And what was done with the mule?

A. I think the mule was taken to the stable under a blanket.

Q. Was Mr. Ham killed in the last explosion?

A. Yes.

Q. Do you have any knowledge of this outside of what he or his wife told you?

A. No, sir.

Q. You were not at the mine opening when this happened?

A. No, sir.

Q. Do you know anyone else that knows personally about that matter?

A. Mr. Abbie Right told me something about seeing a mule at the stable that was burned; I don't know whether it was the same mule or not.

Q. Where does he live?

A. Close about No. 8, I think.

By Mr. Alexander: Q. Who was it told you about the accident to the mule?

A. Mr. Ham told me about it first and his wife talked to me about it since the explosion.



Mr. Ham was not burned?

A. No., sir.

Next came OTTO SMITH, who being first sworn, testified as follows:

### Testimony of Otto Smith.

Examination by Prosecuting Attorney Lowe:

Q. Where do you live?

A. Monongah.

Q. Where do you work?

A. At No. 8, on the tippie.

Q. How long did you work there previous to the explosion?

A. About two years, I reckon, or something like that.

Q. Did your duties every call you inside the mines?

A. No.

Q. Have you ever been in No. 8?

A. No.

Q. Have you ever been in No. 6?

A. I have been in No. 6.

Q. Do you know anything about any dust or gas explosions that ever occurred in either one of these mines before December 6th last?

A. I never did.

Q. Do you know of any men or animals being injured by such explosions?

A. No, sir; I guess not.

Q. What do you know about the condition of these mines as to safety, from any information you got from the people who did work there?

A. I don't know anything about the mines myself.

Q. Do you know of anybody stopping work there on account of any conditions existing in the mines?

A. No.

Q. Do you know of any men complaining about the conditions in the mine?

A. Not only from hearsay.

Q. What was that hearsay? Did you hear the men themselves talk about it?

A. No.

Q. Who did you hear talk about it?

A. Outsiders.

Q. Is it a fact that you know of men ceasing to work in there, giving as their reasons the unsafe condition?

A. No, sir; I do not.

Q. Were you on duty when the explosion occurred?

A. Yes, sir; I was working on the outside of the tippie.

By District Inspector LaRue: Q. Where were you on the day of the explosion?

A. Working at the tippie.

Q. Did you see the explosion?

A. I seen the explosion?

Q. What did you see?

A. I didn't see nothing except smoke.

Q. Where did you first notice the smoke?

A. At No. 8.

Q. Were you where you could see both mines?

A. No, sir; I did not see No. 6 at all.

Q. What were the conditions you first saw?

A. The first thing I heard was the report. I says to the tippie boss, "I reckon the mine has blown up;" and I looked around then and saw the mine had blowed up.

Q. Did you see any flame at that point?

A. I seen some flame among the smoke; yes.

Q. How long did the condition you saw last?

A. I can't tell you.

Q. For some little time or did it quickly disappear?

A. It was pretty quickly over; yes.

By Mr. Alexander: Q. Could that flame have been caused from the wrecking of the high tension wires of the street railroad?

A. I can't say.

Q. How close to the mouth of No. 8 were you?

A. I was across the river on the tipple.

Next came FRED STUBBS, who being first sworn, testified as follows:

### Testimony of Fred Stubbs.

Examination by Prosecuting Attorney Lowe:

Q. Where do you work?

A. At No. 8.

Q. How long have you worked there?

A. Five years ago today.

Q. How soon before the explosion had you been working there?

A. On Wednesday before the explosion.

Q. There was no work there Thursday, I believe?

A. No, sir.

Q. How does it come that you didn't go to work on Friday?

A. My wife was sick.

Q. What did you do in the mines?

A. Driver.

Q. There has been something said here about a horse being burned by a gas explosion in No. 8 awhile before this explosion. What do you know about that?

A. I would not call it a burn; I would call it more of a "swinge."

Q. Were you driving the horse?

A. Yes, sir.

Q. Whereabouts in the mine?

A. Third North on the face heading.

Q. Was anybody else about there?

A. One Italian.

Q. Is he living or dead?

A. Dead, I guess, because I haven't seen him since the explosion.

Q. Well, tell what happened in there

A. That morning the fire boss came in and told me to watch my light—that there was a little gas in there. I goes in and as I drove my car to the face the car jumped the track. I forgot and had my lamp in my hand and put it up on my cap and it lit the gas.

Q. How far did it flame?

A. Just a little piece.

Q. What did you do when you saw the explosion?

A. I can't exactly say, because it frightened me and the horse began to jump a little. I was by myself. I was lying down. I couldn't run because I only have one leg and I never saw a one-legged man run.

Q. What did the horse do?

A. When I got the horse he was about twenty-five feet from the face. He run and the chain dug behind and got hooked in the rail.

Q. When was that?

A. I can't say. I didn't get hurt much and I don't remember.

Q. How long before the explosion?

A. About two months and some days, as near as I can remember it.

Q. Do you know anything about any other animals or men being burned or injured by explosions in that mine?

- A. No, sir.
- Q. Do you know anything about a mule being injured about a week before the explosion?
- A. No, sir.
- Q. Did you hear anything about it?
- A. No, sir; nothing at all.
- By Mr. Alexander: Q. You know where the motor shoot was about there?
- A. Yes.
- Q. How far was that motor shoot beyond the cross cut at the time this occurred?
- A. It began just far enough beyond the crosscut so as not to cause any fall by the crosscut—about five or six feet.
- Q. You say you forgot and put your light up on your cap?
- A. Yes, sir.
- Q. Had the fire boss told you to carry your light low?
- A. Yes, sir; and to watch my light.
- Q. The fan was running at the time was it?
- A. Yes, sir.
- Q. Do you know John Ham?
- A. Yes, sir.
- Q. Was he there?
- A. No, sir; he was working on the first North side about a mile from where I was working. No, sir; he was not there.

Next came TONY PASQUAELE, who being first sworn, testified as follows:

### Testimony of Tony Pasquaele.

Examination by Prosecuting Attorney Lowe:

- Q. Where do you live?
- A. Monongah.
- Q. How long have you lived at Monongah?
- A. Four years.
- Q. Where do you work?
- A. No. 8.
- Q. What kind of work do you do?
- A. Drive a horse.
- Q. How long have you worked in No. 8?
- A. Two years.
- Q. Did you ever drive a water cart in No. 8?
- A. Yes.
- Q. How many times did you drive a water cart?
- A. Every night.
- Q. When did you work?
- A. I worked night shift seven or eight months.
- Q. Before that what did you do?
- A. Hauled coal.
- Q. Where would you sprinkle the mine?
- A. On the main track.
- Q. Who told you to do that?
- A. The boss.
- Q. What is his name?
- A. John McGraw.
- Q. Where were you when the explosion occurred?
- A. In the house.
- Q. Did you work the night before that?
- A. Yes.
- Q. Where?
- A. I sprinkled heading that night.

- Q. What time did you go to work?  
A. Seven o'clock.  
Q. What time did you quit?  
A. Half past five.  
Q. You were sprinkling from 7 o'clock until 5 o'clock in the morning?  
A. Yes; and run a pump, too.  
Q. Putting water in the car?  
A. No.  
Q. Pumping it out of the mines?  
A. Yes.  
Q. Tell all the places you sprinkled the mines that night.  
A. Second South empty track and loaded track; second right on second South, and on the straight loaded track.  
Q. Did you ever sprinkle in the rooms?  
A. No.  
Q. How were the parts before you sprinkled? Was the dust wet or dry?  
A. It was a little dry.  
Q. Did you get all the places sprinkled that were dry or were there some other places that you did not get sprinkled?  
A. Other places.  
Q. Where were the other places that were dry?  
A. I forget what they call it now.  
Q. Had you ever watered these other dry places before that night?  
A. Yes, sir.  
Q. How long before?  
A. About two nights before.  
Q. You say you don't remember the names of the other places?  
A. I call it the second North on the main heading.  
By Mr. Alexander: Q. You watered the main heading the night before the explosion, didn't you?  
A. Yes.  
Q. You watered every night in there?  
A. Yes; every night.  
Q. You were watering in some part of the mine every night?  
A. Yes, sir.  
By Prosecuting Attorney Lowe: Q. Did you run the pump and run the water car at the same time, or would you water awhile and then pump?  
A. I saw about the pump about every two hours.  
Q. It was an electric pump?  
A. Yes.  
Q. You started the pump and then would go every two hours and see if it was going all right, and water the rest of the time?  
A. Yes.
- 

Next came GEORGE BICE, who, being first sworn, testified as follows:

### Testimony of George Bice.

Examination by Prosecuting Attorney Lowe:

- Q. Where do you live?  
A. I live right close to No. 8 mine.  
Q. Do you work at No. 8?  
A. Yes, sir.  
Q. How long had you been at work there before the explosion?  
A. I commenced there in the fall of 1905.  
Q. And have been at work there ever since?  
A. Yes, sir. I first went there as track layer and afterwards went to digging coal.  
Q. What were you doing just prior to the explosion?

- A. Digging coal.
- Q. Where were you when this explosion occurred?
- A. I had started to Fairmont and was down close to the Traction Park Station.
- Q. While you were working in the mines what kind of a lamp did you use?
- A. I always used an open light.
- Q. Did you ever detect the presence of gas?
- A. I saw a few feeders—where the gas would come out of the coal.
- Q. Was there ever enough accumulation there to ignite?
- A. You could set it afire and it would burn very nicely.
- Q. Where was it?
- A. It was off in a heading; I never seen it out in the rooms.
- Q. With that exception do you know of any accumulations of gas?
- A. No; I can't say that—[interrupted.]
- Q. Do you know of any explosions occurring from this gas?
- A. I know of an explosion happening last winter, but whether it was from gas or dust, I don't know. There was a couple of Italians burned and a young fellow by the name of Cook that was working with Mr. Fleming, an engineer. He puts up points for headings in the rooms.
- Q. Is that Mr. Cook alive?
- A. Indeed I can't tell you that.
- Q. What did he do?
- A. He was Mr. Fleming's assistant.
- Q. Was he an engineer?
- A. Yes, sir.
- Q. Do you know the Italian's name?
- A. No, sir.
- Q. That was the last one?
- A. Yes, sir.
- Q. Do you know in what part of the mine?
- A. Second right off the first South.
- Q. Were there any explosions other than that of any kind that you know of?
- A. No; none that I know of until this last explosion.
- Q. Do you know of any animals being burned in there?
- A. I have heard that there was a horse burned in there, but I don't know it to be a fact.
- Q. What were your instructions about the dust that was made in the mines?
- A. I never had any instructions about the dust question at all.
- Q. What was done about that?
- A. Well, it was this way: Some of the miners loaded the dust very carefully while others were very negligent. Some of the men would leave a good quantity of dust in the rooms while some kept their dust cleaned up good.
- Q. Those who did aim to keep it cleaned up—what was used?
- A. Just a coal shovel; they shoveled it up as good as it could be cleaned up.
- Q. The floor of the mine is like the side of it—uneven to some extent, isn't it?
- A. In some places you will find the pavement, as the miners call it, very smooth, and other places you will find it very rough.
- Q. And in these rough places the coal dust would settle, would it not, to some extent at least?
- A. Yes, sir.
- Q. Could that be removed with an ordinary scoop shovel?
- A. It would be impossible to remove it all. Of course a majority of it could be removed.
- Q. I believe it was the custom to remove that before any shots were fired, was it not?
- A. Well, from my knowledge, when I was working on the roads, I would say that I have seen men shoot shots and never remove their dust, and other men would clean their dust up very carefully. Get an ignorant Italian and he paid no attention to the instructions, I suppose, that were given. He would prepare his hole and fire his shot without removing his dust, and an intelligent man would remove his dust.
- Q. But the instructions to remove the dust were never given to you?

A. No, sir.

Q. You don't know whether the foreign miners were instructed about that or not?

A. No, sir; I don't know anything about that.

Q. There has been considerable said about the system of watering in that mine. What can you say about that?

A. Some parts of the mine are watered about once a week and some parts of it are not watered that often, to my knowledge. Some of the headings are watered once a week and some of them are not watered at all.

Q. Between the times they were watered did you ever notice their condition as to being dry?

A. Yes, sir.

Q. What was that condition?

A. It was dry and dusty and a terrible current of air went through the mines. The dust was started up and it didn't take it but a very little bit to dry out.

Q. How about the ventilation?

A. Good ventilation; the current of air was very strong.

Q. And while that strong current of air would have a tendency to drive away any gas would it not, at the same time, have a tendency to dry out the dust?

A. Yes, sir.

Q. Is there anything to prevent the rooms in mines from being watered the same as the headings and haulways?

A. I don't think there is.

Q. Track is laid in them?

A. Yes, sir.

By District Inspector LaRue: Q. How long since you worked on the track?

A. I worked on the track up until June, 1906.

Q. When did you work at digging coal last?

A. On Tuesday before the explosion?

Q. Whereabouts in the mine did you work?

A. Fifth right on the second North.

Q. What was the condition in regard to the dust? Was it dusty?

A. Fifth right was a wet heading.

Q. Have you any knowledge of that mine being dangerously dusty when you were in it last?

A. Where we went in on the straight heading—on the straight heading at the first South—it was very dusty down to the first right on the second North.

Q. Only that time? Have you any knowledge of any dusty places in that mine?

A. Of course I didn't travel through the mine a great deal, but Mr. McGraw wanted me to go and look at some pillars on the first left second North. I went up and looked at them and they were terribly dry and dusty. That is the only heading I had been in for some time, except the one I am working on at the present time.

Q. Was this dust, where they had watered, deep or shallow dust?

A. I don't know how deep it was; I can't just explain that.

Q. Were the tracks dirty?

A. Sometimes they were very dirty and coal would not be cleaned up for over a week at a time. I have known it not to be cleaned up for over a week.

Q. Would it dry in that condition?

A. Yes, sir.

Q. Was ever any watering done along any except the main haulways?

A. I can't tell you.

Q. Did they ever water any of the air courses?

A. No, sir; they never watered the air courses to my knowledge.

Q. Was there any system there of watering the air courses?

A. No, sir; only with the water car.

Q. Did you ever see any local dust explosions there?

A. I seen one in No. 4 mine.

Q. Did you ever see one in No. 8?

A. No sir; only the one I was speaking of last winter, and I don't know whether that was a dust or gas explosion, or a blow out shot; I am not able to say that; I made no examination of it.

By Mr. Alexander: Q. How long have you been working in the mines?

A. I commenced working for the Watson Company the spring after the explosion at Gaston.

Q. About how long ago is that?

A. I can't recollect whether it was in 1880 or 1881.

Q. In this work at Monongah No. 8 you were working at pick work?

A. Yes, sir.

Q. You stated a little while ago that at the time of the explosion you had started to Fairmont and had gotten as far as Traction Park Station?

A. Yes, sir.

Q. What first attracted your attention?

A. The street car had gone up—the one that passed the other one at Middleton. I thought I was late getting to the track and turned around to see if I could see the car coming and when I turned around I saw the explosion. The first thing I saw was the brick, steel, timbers and smoke all together. It looked like the steel and timbers was just a little bit ahead—but very little—and there was a terrible smoke coming out of the mines.

Q. Did you hear the noise?

A. Yes, sir.

Q. Did you hear one or two explosions?

A. Two reports.

Q. After the first report where did the second report sound?

A. Down the river in the direction of No. 6.

Q. How soon was that after you saw the bricks, etc., at No. 6?

A. A very short time.

Q. From where you were you couldn't see the pit-mouth of No. 6?

A. No, sir.

Q. About how far were you from No. 8?

A. I was just thirty-three lengths of steel rails and the rails were thirty feet long. If they were thirty-foot rails that would make it 330 yards.

By Prosecuting Attorney Lowe: Q. The reports you heard—did they seem to be under the hill or were they at the opening?

A. That one up the river seemed to be at the opening.

Q. You were much nearer No. 8 than No. 6?

A. Yes, sir.

Q. About how far were you from No. 6 opening?

A. I suppose something like three-quarters of a mile.

Q. And if the explosions had taken place at the same time you would naturally have heard the No. 6 sooner than at No. 8?

A. Yes, sir.

By Coroner Amos: Q. Did you ever see a state mine inspector in there?

A. To the best of my knowledge I never did?

Q. Did you ever see his report tacked up on the outside of the mine in any way?

A. Yes, sir.

Next came LIBBERATO DELESANDRO, who being first duly sworn, testified as follows:

### Testimony of Libberato Delesandro.

Examination by Prosecuting Attorney Lowe:

Q. Where do you work?

A. No. 6.

Q. How long have you worked there?

A. About four years.

Q. What do you do?

A. Dig coal.

Q. How long before the explosion had you been at work in No. 6?

A. On Wednesday.

Q. You didn't work on Thursday?

- A. No; it was a holiday; worked on Wednesday and Friday—the explosion.
- Q. Did you find any gas in No. 6 when you worked there?
- A. Yes.
- Q. Where?
- A. G face.
- Q. Where did you work in No. 6?
- A. I worked G face on second right.
- Q. Did you ever find any gas any place except on G face?
- A. Yes.
- Q. Name the places that you have noticed gas.
- A. I have been at work on G. face and have gas. I have been at work on F face and have gas. I have been at work on the straight dip and last I have been working on G face.
- Q. How do you know there was gas in these places?
- A. Because the boss comes and says, "Get the light down, you have some gas"; and I said "All right"; that is how I know about it.
- Q. Did it ever get afire?
- A. Yes; sometimes when you get the light too high it gets afire.
- Q. How much did it burn?
- A. Not more than twenty feet.
- Q. What did the coal miner's do with the coal dust that was caused by the undermining and otherwise?
- A. Took and loaded it before they shot.
- Q. What was done with it after it was loaded?
- A. It was loaded in the car. If you have gas in a place and the gas lights it might make an explosion.
- Q. What became of the car?
- A. Nothing; just stood there and the dust was loaded in it so as not to hurt anybody.
- Q. Would the car still be there when you would shoot the coal down, or would it be taken away?
- A. No; it stay there at the place where we would shoot.
- Q. Then you would shoot the coal down and finish loading the car?
- A. Yes, sir.
- Q. And then it would be hauled out?
- A. Yes, sir.
- Q. Do you know of any explosions in the mine before the big explosion?
- A. Yes; I know of one time in E face.
- Q. When was that?
- A. Some gas come and it burned a mule but the mule would not burn; the mule ran away when it saw the fire, carrying the chain behind.
- Q. Did it burn the mule?
- A. A little bit; just a little burn; just a little bit warm.
- Q. How long ago was that?
- A. About two years ago.
- Q. You say you worked on Wednesday before the explosion?
- A. Yes; I worked on the 4th of the month.
- Q. Did you notice any gas in there that day?
- A. Yes; I had a little gas after shooting in the rooms.
- Q. Where was that?
- A. Second right off D face. I blowed it out with my coat so as not to light.
- Q. What was the number of the room?
- A. No. 2 and No. 3; three men work in there.
- By District Inspector Lartue: Q. Did you see much dust along the heading of No. 6 slope?
- A. Yes, sir; some dust.
- By Mine Inspector Paul: Q. Did you ever work in the mine at night?
- A. I worked in the mine at night when helping to get No. 8 and No. 6 through together.
- Q. Have you ever seen men hauling the water car?
- A. Yes, sir.



- Q. Can you tell the jury what caused the explosion?  
 A. No; I can't tell that.  
 Q. Are you going back to work in the mines?  
 A. Yes; I have been back to work in No. 5.  
 Q. What is the matter you don't go to work at No. 6?  
 A. I got scared out there now.  
 By Mr. Alexander: Q. Where were you when you saw the twenty feet of gas burning?  
 A. When I shot the coal down it lit the gas and I fell in the ditch. It was on G face.  
 Q. Your powder lighted the gas?  
 A. Yes.  
 Q. Did it burn you?  
 A. No; it was just hot.  
 Q. Did you ever get burned when you found this gas?  
 A. No.  
 Q. Did you ever use your coat to fan out the gas before you fired the shot?  
 A. No; don't do that.

Next came P. H. FLAHERTY, who being first sworn, testified as follows:

### Testimony of P. H. Flaherty.

Examination by Mine Inspector Paul:

- Q. Where do you live?  
 A. Monongah.  
 Q. How long have you lived there?  
 A. Eighteen years.  
 Q. What is your occupation?  
 A. Electric inspector for the Fairmont Coal Company.  
 Q. Did you assist or superintend the installation of the electric wires in No. 6 and No. 8 mines?  
 A. I did.  
 Q. What kind of electric current do you carry on the wires into these mines?  
 A. Direct current; about 260 volts.  
 Q. What is the electric current used for in the mines?  
 A. For driving direct current motors, for pumping water, driving mine machines, electric motors, hauling coal and some electric lights.  
 Q. In the installation of these wires did you have occasion to put in any fuse plugs in any part of the mine?  
 A. No.  
 Q. Did you have fuse plugs in the outside?  
 A. No; we had circuit breakers.  
 Q. Have you ever had any wires inside of the mines fuse?  
 A. Yes; that has happened several times.  
 Q. Did you not have—several weeks prior to the 6th of December—wires on No. 6 slope fuse by reason of a runaway trip?  
 A. I don't know.  
 Q. When were you in No. 6 and No. 8 mines prior to the explosion?  
 A. I was in No. 6 on the 25th of October.  
 Q. Did you make any observations as to the general safety of the mine?  
 A. No, not exactly; I went in to look over the wires at that time from the entries of the mines down the E face heading.  
 Q. From your observation did you consider No. 6 and No. 8 mines in a safe condition?  
 A. Yes, sir; I did.  
 Q. Will you state whether or not, at any time prior to the explosion, you made a statement to Mrs. Flaherty, that there was any probability of No. 6 and No. 8 exploding?

A. I am pretty sure I did not because I always considered them the safest mines I had.

Q. Where were you the day of the explosion?

A. In 'Gaston mines.

By Mr. Alexander: Q. You say that the electric wiring was in good condition the last time you were in there?

A. Yes, sir.

Q. How soon after the explosion did you go in either of these mines?

A. In No. 6 between 12 and 1 o'clock that day.

Q. When you went in there did you pay any particular attention to the wiring from the pit-mouth down to the bottom of the slope?

A. Yes, sir; I noticed that the wires had not been knocked down; they were all hanging.

Q. Did you notice whether any of the cars were in contact with the trolley wires?

A. Yes.

Q. What sized wires are there?

A. Two nought.

Q. What wires are there up further toward the pit-mouth?

A. Six four nought feed wires-

Q. How far down the slope did they run?

A. They turned off the slope I judge about a hundred feet above where the wreck occurred. They didn't go to the bottom of the slope.

Q. When, if at all, did you make a careful examination of the trolley wire at the foot of No. 6 slope?

A. I don't remember what days but it was after the wreck.

Q. Did you find any indication of fusing or burning of the wires?

A. No, sir.

Q. How much experience have you had in electrical construction?

A. About twenty years.

Q. If there had been a short circuit occasioned by the contact of the car, or some portion of the car, with a trolley wire at or near the end of No. 6 slope, would there have been any indication of that short circuiting on the wires?

A. Yes, sir; the indications would be very plainly seen or the wire would have been burned in two, as our circuit breakers are set at 2,500 amperes.

Q. Did you find the wire had been burned in two?

A. I couldn't find any marks to indicate that the wire had been short circuited.

Q. Isn't it a fact that—as you did not find any indication of fusing or burning on the trolley at the end of No. 6 slope—that that would indicate that the current had gone off; that the circuit breakers had been thrown off before the car had come in contact with the trolley?

A. That is my opinion—that the current was off when the car came in contact with the wire, as it could not possibly touch the wire without leaving a mark with that heavy current going through.

Q. There is electric wiring in each of the mines?

A. Yes, sir.

Q. Was the electric wiring in the two mines connected or was there a separate system?

A. Separate circuits; a circuit breaker for No. 8 and one for No. 6. At one time the circuit was connected, but that switch has been taken out and the wires disconnected.

Q. Then if an accident would have occurred in No. 8 which had affected the wiring in that mine and caused a short circuit, that would not have affected the wiring in No. 6?

A. No, sir.

Q. On the contrary, if anything should occur to the wiring in No. 6 and short circuit the wiring in No. 6, it would not affect the current in No. 8?

A. No, sir.

Q. Then if a car coming in contact with the trolley wire at the foot of No. 6 slope threw out the circuit breaker, that would only throw out the circuit breaker in No. 6, but would not affect the circuit breaker or circuit in No. 8?

A. No, sir.

By District Inspector LaRue: Q. What caused the explosion at the foot of No. 6 slope?

A. I know nothing about that. I noticed where the wire had been spliced in No. 6.

Q. Did you examine the wire on the left hand track?

A. I examined all the wires that could possibly come in contact with the cars.

Q. When were you in the mine first after the explosion?

A. I went in there between 12 and 1 o'clock that day after the explosion, but have been back several times since.

Q. Had there been any wreckage pulled away at that time?

A. No, sir; I don't think they had started on it yet.

Q. How nearly did the cars close up the entry at the foot of the slope?

A. I can't say; we had plenty of room to go through there and climb over the cars, in a couple of places, I believe.

Q. Did you examine the position of the car that lay crosswise of the track—the first car that you came to? I have reference to the car on the left hand track as you went in.

A. There were so many of the cars. I remember the cars being turned crosswise but I didn't notice particularly.

Q. You noticed some coal lying up there toward the cabin door?

A. I stopped and opened the door but I didn't notice any coal lying there.

Q. You noticed some loose coal lying there, didn't you?

A. I don't remember whether I did or not.

Q. Didn't you examine the wire on the left hand track and didn't you notice that the wire had rough places in it?

A. As I stated, I examined all the wires that could possibly come in contact with the car. There may have been some rough places in the wire, which would be occasioned by the wear of the trolley.

By Mine Inspector Paul: Q. Where is the electric power plant?

A. Close to No. 6 tippie and right across the river from No. 6 mine.

Q. Were the circuit breakers in the power house?

A. Yes, sir.

Q. Who has charge of the power house?

A. Mr. John Orr is day engineer in the power house.

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Next came HOMER C. PALMER, who being first sworn, testified as follows:

### Testimony of Homer C. Palmer.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Monongah.

Q. How long have you lived there?

A. About eighteen years.

Q. What is your occupation?

A. Electrician.

Q. Where do you work?

A. Monongah.

Q. Have you been in No. 6 and No. 8 mines?

A. Yes, sir.

Q. Prior to the explosion?

A. Yes, sir.

Q. Have you been in the mines since?

A. Yes, sir.

Q. It has been stated that about a month prior to the explosion four empty cars in No. 6 mine were wrecked. Do you know anything about the electrical wires being damaged by that runaway trip?

A. They were broken in two at one time, but I do not know whether that was the time or not.

Q. What was the nature of the break? Were the wires fused?

- A. It seemed to be broken in two.  
Q. Have you examined the wires at the foot of No. 6 slope since the explosion?  
A. Yes, sir.  
Q. Did you find any evidence of the wires being short circuited?  
A. No, sir.  
By Mr. Alexander: Q. Where were you on the day of the explosion.  
A. In Monongah.  
Q. Where were you the day before?  
A. I was at No. 8 the day before.  
Q. What time were you at No. 8 the day before?  
A. About 10 o'clock.  
Q. Do you remember noticing whether the fan was running at that time or not?  
A. Yes, sir; it was running.  
Q. Do you remember seeing Fred Cooper the day before the explosion?  
A. Yes, sir; at our shop in the morning.  
Q. Where is your shop?  
A. At what was the old power house—up in the upper part of the town toward No. 2 tipple.  
Q. About what time in the morning did you see him?  
A. About half past 8.  
Q. Did he say where he had been?  
A. Yes, sir; he said he had been working that night, and I asked him what he had been doing and he said, "Sprinkling the headings", and I asked him why he hadn't done it that day, and he said he didn't know there was no work.  
Q. What did Fred Cooper do?  
A. He was motorman in No. 6.  
Q. He said he had been sprinkling in No. 6?  
A. Yes, sir.  
Q. Been sprinkling the headings in No. 6 the night before?  
A. Yes, sir.  
Q. At the time you saw him did he look as if he had been working—was he black?  
A. Yes, sir; he was very black at the time. He came over to the shop after a brush spring for his motor.  
By District Inspector LaRue: Q. Do you know what headings he had been sprinkling that night?  
A. No, sir.  
Q. Was Fred Cooper killed in the explosion?  
A. Yes, sir.  
By Mr. Alexander: Q. Do you know Mr. Kerns, who was fire boss at No. 8?  
A. Yes, sir.  
Q. Did you see him when you were up there at No. 8 the day before the explosion?  
A. Yes, sir.  
Q. What was his condition as to dress?  
A. He had just come out. He had a safety lamp and had come down and was talking to Mr. Bice.  
Q. Do you know whether he went back in the mine or not?  
A. No, sir; he was there when I left.  
Q. Did he say anything to you about what he had been doing that day.  
A. No, sir.
- 

Next came David Victor, who being heretofore sworn, testified as follows:

### Testimony of David Victor.—Recalled.

Examination by Mine Inspector Paul:

- Q. Where were you when mines No. 6 and No. 8 exploded?  
A. At New England.  
Q. How soon after the explosion did you get to No. 6 mine?  
A. As near as I could tell you it was a few minutes before 12 o'clock; possibly ten or 15 minutes before.

Q. Did you go to the foot of No. 6 slope?

A. Yes, sir.

Q. What was the condition of the wrecked trip? How near did it close the entry?

A. If I remember right the trip was badly wrecked. I remember climbing over the wrecked cars, but had plenty of room to go over. I remember the wrecked trip happened right on the switch where there were three entries opened up. The wreck had happened in the middle entry and that entry was closed. The entry to the left was not closed. I remember climbing over the empty cars in order to get through to start to building brattices.

Q. Do you know whether there was any difficulty had in getting a bucket of water over the wrecked trip?

A. No, sir; I don't remember of any bucket of water going over after I got there. I know we took brattice cloth and material over the wrecked trip after I got there.

By District Inspector LaRue: Q. Do you remember the position of that first car you climbed over—the one that laid crossways of the track?

A. I remember of climbing over cars but I didn't stop to look whether it was the first or second car. I remember there was a wrecked car lying crosswise.

Q. Do you remember the condition of the coal lying along up the slope?

A. No, sir; I do not.

Q. You don't remember passing a considerable quantity coal lying there next to the cabin door?

A. I believe there was some coal lying there. I know I looked in at the door.

Q. Was the door open when you looked in?

A. I don't remember whether it was or not, but if not I pushed it open and looked in.

Q. Who was the first man in there after the explosion?

A. I don't know; there were men in there when I went in.

Q. You didn't make a definite examination of that first car that was crosswise of the track?

A. No, sir.

Q. You didn't make a careful examination of the coal that was forced back up the heading?

A. No, sir.

Q. Did you make an examination in regard to signs of fire?

A. Yes, sir.

Q. Did you make an examination of the men dead in the shanty?

A. No, sir I did not.

Q. You didn't examine their hair?

A. No, sir.

Q. Where in that heading were the first signs of fire which you saw?

A. There were signs of fire on the left hand heading between the left hand loaded track and the air course; also beyond right entry between the loaded track and the motor shoot.

Q. What kind of signs did you notice there? What was their nature?

A. On one side there seemed to have been dust, that had been fired, that was deposited against the side of the pillars as it came outward. On the other side there seemed to have been flame and fire in what we would call a tight end of a heading. In that place there was evidence of flame having burned in there; to some extent there was charred coke on the roof and ribs.

Q. How far from the inner end of the wrecked trip to where you noticed the first fire?

A. About forty feet as near as I can remember.

Q. Did you notice any signs of fire on the pavement just a little beyond the wreck on the right hand side of the empty track?

A. No, sir.

Q. How soon after you got there did you make this examination? Before any work was done?

A. About two hours.

Q. About what time did you make this examination?

A. At different times while we were working along these headings.

Q. I have reference to your first examination?

A. The first time I found the evidence of fire was probably in the afternoon or evening when we were on the right hand side looking for places to build brattices; possibly an hour and a half after I got there. There had been considerable stuff taken from the wreck.

Q. You didn't make a minute examination of these conditions when you got there?

A. No, sir.

Q. You didn't handle that man's hair that was sitting in the shanty, dead?

A. No, sir.

Q. Do you remember the man lying on his face with his feet toward the door?

A. Yes, sir.

Q. Would not that indicate that the man was making his escape from something?

A. No, sir; I think not.

Q. How can you account, then, for his head being where he was and lying on his face without any signs of struggle?

A. Was not the other man lying right in the opposite direction from what he was?

Q. Yes, sir; on his back; and there was a man sitting up with his mouth full of coffee and his bucket open and he had evidently been drinking coffee. Did you notice those things?

A. No, sir; I just noticed the men in that place.

Q. You didn't put your hand on their hair?

A. No, sir; not that I remember of.

Q. And you didn't make your examination for fire until about 3 o'clock in the afternoon?

A. Yes, sir; about that time the best I can remember.

Q. Who do you remember of seeing in there when you first went in?

A. I remember John Smith and two or three other men.

Q. Were there any practical men ahead of you—men being able to judge of conditions in there?

A. I believe Mr. Gaskill was in there, but I am not sure about that. There was Mr. Smith and two or three other gentlemen, I am not positive about meeting Mr. Gaskill.

By Coroner Amos: Q. Would you mind giving to the jury the benefit of your guess as to what caused this explosion?

A. I would only be a guess, the best I could do. I have not made a minute examination of the mines. I have made an examination of some parts, but not of all parts.

By District Inspector LaRue: Q. Do you consider that there has been one explosion or a series of explosions in No. 8?

A. A series of explosions.

Q. That being the fact, then, there must have been one initiatory point?

A. Yes, sir.

Q. Could the initiatory point of the explosion be in No. 8 and cause a series of explosions there before No. 6 blew up? It seems to have been almost instantaneous. Could the initiatory point have been in that region and produced the results that we find?

A. Well, I would think so.

By Mine Inspector Paul: Q. Is there any one locality in the mine where, in your opinion, there is a probability of the explosion having originated?

A. Yes; more than one locality.

Q. Name some of these points where there may have been a probability of the explosion having originated.

A. Third left heading on second north face heading would be one. Second right on first south face heading.

By Coroner Amos: Q. What were the indications?

A. The indications on the third left off second north face heading were the evidences of the force coming out of this entry having separated near the mouth of this entry, a part going toward No. 8 pit-mouth and the other part going toward No. 6 mine. Also in that heading we find a fresh shot that had been fired on the face of the heading. This shot was not a blown out shot, but showed evidence of

having been overcharged with powder, which might have created a volume of heat enough to generate gas from the coal or particles of dust that it might come in contact with, to have started the explosion. Another was that the miners working in the heading were congregated, I believe, in room 21 or room 22, some 200 feet from the shot in the heading, showing at that time that they had gotten out of the way of a shot that had been fired in the heading.

By Mine Inspector Paul: Q. Did you find evidence of powder having exploded in any of the rooms on that entry?

A. Yes, sir; it looked like there had been a powder explosion in it.

Q. In what room?

A. I believe about 18 room, or one of the rooms close.

Q. What were the evidences you observed on second right off first south?

A. I would say there was more flame—more evidence of fire—in that heading, starting at 9 or 10 room and continuing to 31 room, than was exhibited in any other place in the mine I was in. In room 31 there was a possibility of a blow out shot, or, at least, the shot had been improperly located and had been fired off without bringing down the coal.

Q. In what rooms on that side did you find evidence of powder explosions?

A. I believe 21 and 22 showed plain evidence of powder having exploded, and I believe in two or three other rooms.

Q. You think the overcharged shot on the face of third left on second right, or the blown out shot in room 31, or the exploded powder between room 21 and 22 off second right would have been sufficient to have started the explosion?

A. The evidence in third left heading is not sufficient to cause me to think the explosion started there; while the evidence of flame in second right heading off first south is entirely sufficient to have started the explosion, in my opinion.

By District Inspector LaRue: Q. Which one do you think—of these two places—blew up first?

A. I would not be able to say.

Q. Have you made a careful examination of that mine—of both of them—for the initiatory cause of this explosion?

A. The examination I have made has been minute, but I have not examined all parts of these mines.

Q. Did you consider that mine, the last time you were in it, in a perfectly safe condition in regard to gas, dust, etc.?

A. Yes, sir; I did.

Q. What is the nature of your report of this last visit?

A. My reports are good for everything with the exception of the recommendations I made of a couple of places on the main heading that needed to be sprinkled.

Q. Would you have been afraid of being destroyed by the blown out shot if you had been there when it occurred?

A. No, sir; not under any consideration.

By Mine Inspector Paul: Q. Did you make an examination of 1, 2 and 3 right butt entries off B face?

A. No, sir.

Q. What was the element that propagated the force through the mine, if it had originated at any one of the places you have named?

A. The only element I would know of would be dust.

By District Inspector LaRue: Q. How do you account for the vast amount of dust now in No. 6?

A. The only way I could account for it would be the fact that the explosion, with the force that went through the mine, and the fire, had generated that dust, picking up the loose coal, grinding it against the roof and ribs which the storm, as it went through, carried along.

Q. By observing the position of the charred dust on different places in the mine are you able to judge from that the direction in which the main explosive force would travel?

A. I don't know but what you could; but when you go into a place of that kind you find the forces so conflicting that you are not always able to reach a correct conclusion.

Q. What force killed the men in the explosion—the forward force or the back-work force?

A. I would not be able to say; I would think the forward force was enough to kill them.

Q. You observed the cars and motors that were wrecked?

A. Yes, sir.

Q. How far was the motor away from the trip of cars?

A. I would say nearly twenty feet.

Q. Did you observe whether or not a part of the top of the motor was found in the crosscut at the end of the trip of cars?

A. Yes, sir.

Q. Would that indicate that the force had gone up the entry or come out of the entry?

A. That would indicate to me that the force had met the trip coming out.

Q. What were the main indications along the main entry of No. 6—from F face to the mouth of No. 6 mine—as to the direction in which the forces traveled?

A. Conflicting; there was evidence of force both ways.

Q. Did you observe the overcast on the main air course at F face that was destroyed?

A. Yes, sir.

Q. Which way did the parts of the overcast appear to be blown?

A. Parts of them seemed to have been blown both ways. The overcast had evidently been broken from the force underneath first; then there seems to have been a force coming from the back end of the mine up the airways that scattered the pieces of the overcast back up the headings and up toward the switch on the main heading.

By District Inspector LaRue: Q. How would you account for the conflicting forces from F face heading to the mouth of No. 6 mine?

A. I would have to account for them the same way I would account for forces in a number of other places. I would not be able to account for the evidence of the conflicting forces.

Q. You have indications of force having gone in the main entry from the foot of the slope?

A. Yes, sir; through the connections.

Q. What was the nature of those evidences?

A. Dust being deposited on the in-by corners, off of the projections of the coal, while the evidence of the force going out was the breaking off of the out-by corners.

Q. Would that explosion create a vacuum in there?

A. Yes, sir; it evidently would.

Q. In what way is that vacuum created?

A. By the generation of heat and the outrush of air, and when the temperature cools off it leaves a vacuum in the heading.

Q. You speak of the two conflicting forces between F face and the foot of the slope. How do you account for the two forces in that heading?

A. I have not attempted to account for it. I find evidence of these forces all over the mine.

Q. How do you account for the two forces there? What is your opinion as to the cause of the conflicting forces in the slope?

A. I have none.

Q. How do you account for the destruction of the flame in No. 6, inside of the mine?

A. Why do you ask that question any more than about the destruction of the flame in No. 8?

Q. Because in No. 8 everything is total destruction and we have no evidence of flame going out—only snuff-colored smoke—indicating that the flame had been destroyed in the mine. How do you account then for the destruction of the fire inside the mine? Did you ever see a great mine explosion of any kind and no flame coming out?

A. No, sir; I never saw a great mine explosion.

Q. How do you account for the destruction of the flame in this mine? We have evidence of the flame at all of the outlets of No. 8, or nearly all of them, haven't we?



- A. Yes, sir.
- Q. Then you are not able to account for the destruction of the flame inside the mines?
- A. I may not be able to account for it.
- Q. You are aware of the fact that No. 6 is much larger than No. 8?
- A. Yes, sir; there are more openings in No. 6.
- Q. Did you ever know of a large mine explosion and the flame dying inside the mine?
- A. It would be as reasonable that the flame would die near the mouth as it would for the flame dying from one point in the mine. We have known explosions that occur in a mine and the flame would burn itself out, stopping at almost any point.
- Q. Do you think an explosion could have stopped in No. 8 mine with the force that was there?
- A. We know that that explosion didn't stop in No. 8, is all I can say. I have seen blown out shots in mines that did stop.
- Q. In your opinion which one of these two forces between the foot of the slope and F face destroyed life on that heading?
- A. I would not be able to say.
- Q. Which was first and which was second?
- A. I didn't find evidence that would enable me to determine.
- Q. Which was the greatest—the outgoing or the incoming force?
- A. The greatest was the outgoing.
- Q. Isn't it your judgment that that is the one that deposited the dust that the flame did not consume?
- A. That was the one that evidently deposited the dust in the outgoing corners of the ribs.
- Q. I understand there was nothing but a wooden door or wooden stopping in one of these connections between No. 6 and No. 8 and I understand one was brick. Would it have been possible for the vacuum created in the rear of the first force in No. 6 to have torn out these stoppings and so created the explosion in No. 8?
- A. It could have been possible but I do not think it was probable.
- Q. Isn't it possible that the force starting at the bottom of the slope in No. 6 created a vacuum and that vacuum created at that point would bring on a series of explosions in No. 8, almost instantly?
- A. I would not think so.
- Q. How do you account for the two forces on that heading?
- A. I will not attempt to account for them.
- By Mine Inspector Paul: Q. In the connection between No. 6 and No. 8 it has been stated that there is a door. Are you familiar with the location of that door?
- A. I believe so; yes, sir.
- Q. State which way that door opened.
- A. The door, if I remember right, opened toward No. 8 mine.
- At this point the hearing was adjourned until tomorrow morning.

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JANUARY 10th—MORNING SESSION.

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Next came FRED SWEENEY, who being first sworn, testified as follows:

**Testimony of Fred Sweeney.**

Examination by Mine Inspector Paul:

- Q. Where do you live?
- A. New England.
- Q. How long have you lived there?
- A. Three years.
- Q. What is your occupation?
- A. Cutting coal and shooting.

- Q. Where do you work?  
A. On seventh face.  
Q. Where were you on the day of the explosion at Monongah?  
A. Working in the mines at New England.  
Q. Had you ever been in No. 6 and No. 8 mines?  
A. I worked in No. 6.  
Q. How long ago?  
A. Three years.  
Q. What made you stop work?  
A. I got a better job.  
Q. Was it on account of any condition in the mines?  
A. No.  
Q. Did you hear a conversation with a man working in No. 6 prior to the explosion, in which a complaint was made about the condition of the mine?  
A. No, sir.  
Q. Do you have any information of importance to give this investigation?  
A. Only what I heard—only what was told me. They said John McGraw was supposed to quit at the first of the year.  
Q. What was that information?  
A. They said that the company had asked him to quit because he told them the mine was not safe.  
Q. Who gave you that information?  
A. John Connors.  
Q. Where is he?  
A. He is working today at New England.  
Q. Did Mr. Connors tell you that John McGraw told him that?  
A. No; some other man told him.  
Q. Do you know who the other man was?  
A. No.  
Q. When was this information given you—before or after the explosion?  
A. Since the explosion; Tuesday morning.

The witness, DAVID VICTOR, being recalled for further examination, testified as follows:

### Testimony of David Victor.—Recalled.

Examination by Mr. Alexander:

- Q. How old are you?  
A. Thirty-eight years.  
Q. How long have you worked in and about coal mines?  
A. Twenty-one years.  
Q. Where did you begin working in coal mines?  
A. In the Connellsville region.  
Q. About how long did you work there?  
A. Eleven years.  
Q. Where else have you worked besides Connellsville and around Monongah?  
A. No place.  
Q. When did you come to Monongah?  
A. In April, 1899.  
Q. In what capacity did you work at Connellsville?  
A. Miner, driver, track layer, timber man and fire boss.  
Q. You had a fire boss's certificate from the officials of Pennsylvania?  
A. Yes, sir.  
Q. Where did you first work at Monongah?  
A. At No. 3 mine.  
Q. In what mines at Monongah have you worked?  
A. In No. 3 No. 2, No. 5, No. 6 and No. 8 mines.  
Q. In what capacity have you worked in these mines?

A. Mine foreman in No. 3, assistant mine foreman in No. 3 and general mine foreman of all the mines there.

Q. When did you become general mine foreman?

A. At the organization of the Fairmont Coal Company.

Q. In July, 1901?

A. Yes; I went to work the first of September.

Q. How long did you serve in the capacity of general mine foreman?

A. Until two years ago; five years.

Q. Then what position did you occupy?

A. Mine inspector.

Q. What position do you now hold?

A. Chief mine inspector.

Q. What are your duties, Mr. Victor, as chief mine inspector?

A. To look after the examination of the mine in regard to the health and safety condition of the miners, the care of property throughout the mines, seeing that the mines are developed according to plans laid out for them, and to look after the work generally.

Q. How many assistants have you?

A. The Fairmont Coal Company employs four—three besides myself.

Q. To what department are the inspectors attached?

A. To the general superintendent's department.

Q. Who are your assistants?

A. Mr. Tarleton, Mr. Thompson and Mr. Brooks.

Q. How frequently do you and your inspectors examine the different mines?

A. An inspection is made in nearly all mines nearly every two weeks. We make a general examination of all the mines every month. Then we make an examination of all accidents that happen and make an examination of different parts of the mine on special occasions.

Q. After making an examination what do you do in the way of making your report?

A. We report to the general superintendent.

Q. These reports are made to him. What is done then by the general superintendent?

A. He reads the report and sends two copies of it to the superintendent of the mine—one for himself and one for the mine foreman—with recommendations to suit. If there are any recommendations made in the report he goes over them.

Q. As chief inspector do you inspect any particular mines?

A. Yes, sir.

Q. What ones?

A. The Shaft mine, New England, Gaston and Monongah No. 6, No. 8 and No. 5 and Shaver.

Q. During what time have you been inspector of these mines?

A. About six months—since Mr. Thompson came on the force.

Q. Previous to that you had been inspector of these mines together with others?

A. Yes.

Q. How often have you been visiting No. 6 and No. 8?

A. Once a month on a general examination. That examination included two days in the workings of each mine. Between that time I visited them, I suppose, nearly once a week on other occasions—accidents or special occasions—in regard to pumping, etc.

Q. Were you general mine foreman of Monongah mines from the time No. 8 was opened?

A. Yes, sir.

Q. And you became general mine foreman after the formation of the Fairmont Coal Company?

A. Yes, sir.

Q. No. 6 had been developed to a very small extent at that time?

A. Yes, sir.

Q. In making your examinations tell the jury just what you did?

A. Well, I went to the mine and I generally secured the company of the mine foreman and examined the ventilating apparatus, the fan, the main haulway, stop-

pings along the heading, the pillar workings, most of the room workings, all of the heading workings, with regard to the safety of top and ventilation, and everything that might be necessary to be looked after—pumping, drainage, etc.

Q. That examination was made at least once a month?

A. Yes, sir.

Q. And sometimes oftener?

A. Yes, sir.

Q. Did you measure the air at the time you made the examination?

A. Yes, sir.

Q. How many measurements of air did you take in No. 6?

A. That varied. Sometimes we would only make two measurements—the intake air and the return. Often I would measure the split—measure the air at each butt heading to see if the air was properly dividing.

Q. What kind of a lamp did you take?

A. I had a safety lamp, or had the mine foreman accompany me with a safety lamp.

Q. So you could test for gas?

A. Yes, sir.

Q. Who was mine foreman at No. 6?

A. Thomas Donlin.

Q. How long have you known him?

A. Since I came to Monongah in 1896.

Q. In what capacity was he working at the time you were general mine foreman?

A. Track layer, miner, boss driver.

Q. Did he ever serve as fire boss?

A. Yes, sir.

Q. What is your opinion as to his qualifications and ability to perform the duties of mine foreman?

A. Very good; he was sober and industrious and a hard working man, with ability enough to properly and thoroughly look after the workings of the mine.

Q. John McGraw was foreman at No. 8?

A. Yes.

Q. How long have you known him?

A. For the same period.

Q. In what capacity did he serve when you were general mine foreman?

A. Driver, boss driver, wire man, assistant mine foreman and various other occupations.

Q. What have you to say as to his qualifications and ability?

A. He was No. 1.

Q. You are acquainted with the mine foremen of the Fairmont Coal Company?

A. Yes, sir.

Q. How did McGraw compare with the others in regard to ability?

A. There was none better than he; not second to any of them.

Q. How about Donlin?

A. He was a good man but not quite as good as McGraw. He was one of the best we had.

Q. You know the fire bosses at No. 6?

A. Yes, sir.

Q. Do they, in your opinion, have the qualifications and ability to perform the duties of fire bosses?

A. Yes, sir.

Q. You have seen them frequently?

A. Yes, sir.

Q. And come in contact with them while making inspections?

A. Yes, and at other times. I have had them come to my office and talk over their work.

Q. Were any of them employed when you were general mine foreman?

A. Yes, sir.

Q. How about P. J. McGraw and Kerns?

A. They were both there when I went there.

Q. Were they qualified to fulfill their duties as fire bosses?

A. Yes; in my judgment they were thoroughly qualified.

Q. You had been through the mines frequently before the explosion?

A. Yes, sir.

Q. And since the explosion?

A. Yes, sir.

Q. Did you notice any debris lying along the headings and air courses since the explosion?

A. Yes, sir.

Q. What was that debris? Is it what is called coal dust, as you understand it, in mining laws, or fine coal or coke?

A. It is a mixture of fine coal and coke cinders, particles of slate, horse back, timbers and boards all mashed and ground up, and is not what I consider coal dust, except portions of it.

Q. Have you ever made any examination close enough to approximate what percentage of this stuff is actually coal dust?

A. No, sir.

Q. It is but a small percentage?

A. I would say a very small percentage.

Q. The stuff you find there now—was that there before the explosion?

A. No.

Q. Is there any comparison to what is there now and what was there previous to the explosion?

A. No, sir; none at all. A good many places were what we term "cleaned," before the explosion, and they are now piled with debris possibly six inches deep. In some places it is not that much. In some places it is over the tracks, and even at some places where the water is standing there are two or three inches of material on top of the water.

Q. I believe you stated yesterday that you went in the mine between 12 and 1 o'clock on the day of the explosion?

A. I said I got there ten or fifteen minutes before 12 and went in immediately.

Q. In your examination of the mine from that time on were the mines wet or dry?

A. They were dry.

Q. Very dry?

A. Well, yes; more than ordinarily.

Q. Did you find any places in the mine that were dry then, that previously had been wet?

A. Yes, sir.

Q. What places in the mine generally were wet previous to the explosion?

A. In No. 6 on all the butt headings to the left of F face were wet and the abandoned workings of C and D face were wet or damp, and had to be ditched to keep the water from standing. The right headings on E face were wet. The fourth, fifth and sixth left headings on E face were wet. In fact they were all wet, but after being cut through to G face the water was drained off. The other headings were standing with water in them at the time of the explosion. G face heading was wet and had to be pumped; E face heading was wet.

Q. And also a number of the headings in No. 8 mine?

A. Yes; the first south face heading was always wet. It had to be looked after to keep the mud down—to keep the horses from having to work in the mud.

Q. In your examination do you examine for dust?

A. Yes.

Q. Now, in your opinion, did Monongah No. 6 and No. 8 compare with the Shaft and New England so far as dust is concerned?

A. As good as any mines we have.

Q. How did they compare with the other mines of the company in regard to safety conditions?

A. I considered them the best we had.

Q. In your inspection—looking for the safety condition—were any suggestions or recommendations that you made not complied with?

A. No, sir; as far as I know everything had been done.

Q. Do you know of any time that any material or supplies necessary to make the mine safe were not furnished, or were refused to be furnished by the company?

A. No, sir.

Q. What do you know about the policy of the company in furnishing material and supplies to make the mine safe?

A. My instructions were that nothing was to be spared in making the mines safe and keeping them well equipped.

Q. Do you know of any instance where the company has refused to give the mine foreman or superintendent supplies to make the mine safe?

A. No, sir; everything has been furnished and furnished according to the requirements. If it was necessary to have it immediately it was gotten immediately.

Q. Do you know that the mines were watered?

A. I know they were.

Q. What equipment have you for watering in No. 6?

A. We had water cars.

Q. Do you know into what portion of No. 6 these cars were taken?

A. The mine foreman's instructions and everyone's instructions were that the mines were to be looked after carefully in regard to the dust and sprinkled at any time that they saw it was needed. My instructions were if I found a place that I thought needed to be sprinkled, to recommend to the foreman that it be looked after carefully. I believe that was being done. There was no set time or place for that; it was left to the mine foreman.

Q. From the time of making one inspection to the other, would you find evidence that your instructions had been carried out?

A. Yes, sir.

Q. This sprinkling was done in the headings?

A. Yes, sir.

Q. What is the general rule of watering or sprinkling in the mines of this region?

A. They have no known custom except watering the headings or haulways.

Q. Have you ever encountered the state mine inspector in his rounds of investigation through the mines?

A. Yes, often.

Q. Was the inspector called on or did he observe your system of sprinkling?

A. Yes, sir.

Q. Was any complaint made to you by the state mine inspector of your system?

A. Not to my knowledge.

Q. Was there any suggestion as to adopting any other system?

A. No, sir.

Q. You said that in undercutting a room it was done by a machine and cut about six and one-half feet.

A. Yes, sir.

Q. And that cutting was four and one-half inches thick?

A. Yes, sir.

Q. And this cutting makes about three-fourths of a car of coal of different degrees of fineness?

A. Yes; possibly a little more than three-fourths of a car.

Q. These cuttings are loaded on a car?

A. Yes, sir.

Q. And after that the miner cuts down with his pick enough more coal to fill the car?

A. I don't know that I said that, but that is a fact. In a machine-cut room they loaded the cuttings on a car and then cut enough to make up the car load.

Q. Is the miner paid for these cuttings?

A. Yes, sir; at the same rate as the other coal.

Q. Did you make an examination of these cuttings to see how fine they were?

A. Yes; I made a number of examinations.

Q. It is not all dust?

A. I would not say it was.

Q. A great deal of fine coal, something the size of a pea?

A. Yes, sir.

Q. The greater per cent of it is coal of that size?

A. I would not say what per cent, but a great deal is as large as a pea and some larger.

Q. What character of bits did they use?

A. A pick-point bit—a sharp bit like the pick that miners use.

Q. The other bit is a chisel-point bit?

A. Yes, sir.

Q. What kind of a bit makes the finer coal?

A. The chisel-point bit.

Q. These cuttings the size of a pea would not be carried in suspension in the air and would not be what you understand the mining laws to term coal dust?

A. No, sir.

Q. What is the rule of the company in regard to loading the dust before firing?

A. The rule is the dust must be loaded and the place cleaned up before a shot is made, and the dust hauled out of the room.

Q. How well is that rule observed?

A. Very good; but I have found violations of the rule; I have found violations of the rule a number of times. I also have found the mine foreman and fire boss looking after it carefully and attaching a penalty to each miner they found violating it. The first and second time they would lay them off for a few days, and if he insisted on that practice they discharged him.

Q. You think this rule is a safety precaution?

A. It was adopted for that purpose and I believe it is, to a certain extent.

Q. Something was said about watering in the face of the room. Do you think it practicable to water the machine cuttings?

A. Hardly.

Q. Why?

A. In the first place it would require a new system of watering the mines. Again, I don't believe that if the rooms were watered in the face that the danger would be allayed to any great extent. The fact of watering a room the first time would cause the coal to be damp, and the next time the machine cuts, what coal is put in motion by the cutting would settle on the ribs, and if the rooms were not washed off each time, it would leave a greater deposit on the ribs than if the place was made wet.

Q. The fact that these cuttings are of an oily character—it would take a great amount of water to wet the whole face enough to prevent dust?

A. Yes. A good many people who have made a study of watering mines say it should be watered with not less than one-half its weight of water.

Q. You use the same system of watering and loading out the coal dust in No. 8 as in No. 6?

A. Yes, sir.

Q. The same rules and recommendations apply to each mine?

A. Yes, sir.

Q. In going over the map you gave the number of cubic feet of air in each split. What do you mean by a "number of cubic feet of air?"

A. I mean that that certain number of cubic feet of air is circulating around the working places of that portion of the mine as indicated by that split of air, each minute.

Q. Take No. 2 right south in No. 8 mine on the map: It is given as 22,400 cubic feet of air. Do you mean that many cubic feet of air is in that split?

A. Yes, sir.

Q. Is that fresh air?

A. Yes, sir.

Q. How many cubic inches of air are you required to furnish each man in a split?

A. The requirement of the mining law is possibly 100 cubic feet in a non-gaseous mine, and 150 cubic feet in a mine that generates explosive gas, and as much more as is necessary to render harmless any gasses given off, which makes the number of feet indefinite—as much more as the state mine inspector may require.

Q. You mean that many cubic feet per minute per man?

A. Yes.

Q. Has any complaint been made to you by the state mine inspector as to the quantity of air furnished?

A. No, sir.

Q. How do you ascertain the number of cubic feet of air furnished in this particular split?

A. By using the anemometer, which is a wind wheel with a register. This heading has a sectional area of sixty-five feet. That's the average. The sectional area is found by multiplying the height of the heading by the width. The headings are driven ten feet wide and 6 and one-half to seven feet high. That makes an open space through that vein of coal of sixty-five feet. We take this wheel, which has a register, and by holding that in the current of air and letting the air blow through it, it turns the wheel and the register. The register registers each foot of velocity of air passing through the wheel. We start the wheel at zero. It will register one thousand feet a minute. It has two hands. When this one [indicating] makes ten rounds the other makes one. This one registers the hundreds of feet, and the other the feet under one hundred. We take our watch and hold it for a minute, starting the wheel at zero. The number of feet that registers in a minute is the speed at which the air travels through the mine. By multiplying the speed at which the air travels by the area of the air way we have the number of cubic feet of air circulating each minute.

Q. Assuming that the velocity is 100 feet per minute and the area of the air way is sixty-five square feet, how many cubic feet of air is furnished to that air way?

A. That would be 100 feet multiplied by 65, or 6500 feet.

Q. Taking mine No. 8 you find there seven parallel headings. What is the advantage, in your opinion, of having that many headings?

A. The advantage, in the first place, as to ventilation is this: We will assume that we have two headings. We have one intake and one return to the fan. There is a 65-foot area for the air to go in and a 65 foot area to come out. In order to circulate sufficient air for a large mine, in the first place assume that the mine is opening up 1600 acres of coal. We prepare to work out that coal. We find if you drive two headings—a haulway and an air way—as has been the custom in past times, it is necessary to create a great pressure of the fan. If your mine is a mile long with one intake and one return, with a line of wooden brattices all the way back, we might assume you would have to have a 4-inch pressure of the water gauge. Each inch is equal to 5.22 pounds pressure; that would be nearly twenty-one pounds pressure you would have to create to circulate 1,000,000 of air. That would mean, by the ordinary means of stoppings, you lose a great portion of air through the stoppings and you are not able to circulate the air to the back part of the mine on account of the resistance being so great. We might assume that we come into the same mine and drive one intake along side of that and drive one return. The result is we cut the frictional resistance half in two. We might assume it was cut twice in two by giving the air twice as much space. The result is the velocity would have to be but one-half as fast to get the same volume of air to the back heading. The result is the pressure would not have to be one-half as great, thereby causing less air to be lost through the brattices and you get the volume of air to the back end and with less velocity of one air way. It would also be true if you still increase the area—that you get the same amount of air with less velocity. We endeavor to make area enough so we will not be cramped in getting the air in. We put a fan at the outside to make 275,000 cubic feet of air to ventilate all the workings. We also open up three intake air ways and haulways. The advantage in another way is this: We will assume that at the time the mine exploded we had 175,000 feet of air. In order to have produced that air in one air way we would have to have a great velocity (divide 175,000 by 65). To have gotten that amount of air in the mine and out it would have to travel at the rate of nearly 3,000 feet per minute. The result of that in the way of making dust or driving out dust would be much greater at the rate of 3000 feet a minute than at the rate of 900 feet. By making three air ways we take in the 175,000 feet of air with one-third of that velocity—say 900 feet instead of 2700 or 3000. It is safer to have the velocity at a slow speed.

Q. You take in the same quantity of air by having seven parallel headings at a velocity of 800 or 900 feet a minute as you could take in by one at 2700 or 3000?

A. Yes; and it is more practicable; it takes less resistance. Assume that we have 100,000 feet of air. We come to a point that that will not ventilate the mines.



It may take 200,000 feet of air. Our experience teaches us that when we come to double the quantity of air, it takes eight times the power to produce that. If we had 100,000 feet with one air way and taking four inches of water gauge, then in order to double it would take eight times as much power, which is almost impossible—to ventilate a mine of that size with one air way. You would have to have such a high water gauge that it would be impossible.

Q. Is there any way by which you can tell whether the air currents you are sending in and taking out are performing their work, and going to the faces, and keeping up proper ventilation and not being interfered with?

A. Yes, sir.

Q. How?

A. By the pressure gauge on the fan.

Q. You have a pressure gauge on each fan?

A. Yes, sir.

Q. And by that you tell the regulation of the current during a given time?

A. Yes; to a very accurate degree.

Q. If the pressure gauge indicated a 3-inch or 4-inch water gauge and was continuous for twenty-four hours what would that mean to you?

A. That would mean that by first knowing the amount of air going into that mine with a 3.4 inch water gauge—for instance, I go to No. 6 not knowing the condition of the mine; I would go to the pressure gauge which regulates the pressure which the fan created and see that it created a 3.4 inch water gauge; I would measure the air in the mine by use of the anemometer; I would make a record of that. Suppose it was 165,000 feet of air. If I look at the gauge every day and see 3.4 inches of pressure is continuous each minute of the twenty-four hours, I am reasonably sure that the same amount of air is being conducted through the mine.

Q. Suppose that water gauge should jump up to six inches. What would you understand by that?

A. That something had happened in the mine that caused the fan not to be able to get its air; that the air ways were closed up or something; that the fan in endeavoring to get air created a greater pressure.

Q. Suppose the water gauge would drop to two inches.

A. That would indicate that the air was not circulated through the natural courses. Something had happened that the air was being forced through the back part of the mine but was returning to the fan without performing its duties.

Q. Explain what you mean by a "water gauge."

A. The water gauge is an instrument made to register the difference between the intake and the return currents of air. We have to make a pressure. If we have to use a vacuum fan, we call the pressure a vacuum. The fan starts to revolve and causes a vacuum. The air starts to flow in the mine on the opposite side to fill the vacuum, and the difference in the pressure going in and coming out is registered on an instrument like this. [Witness here exhibits instrument and explains from same.] We take a brattice in the mine and bore a hole in the brattice. Assume that this is one side of the air way. We bore a hole here. This instrument is open here, and has water in it. We put that on the brattice and the difference in the pressure will cause the water to flow up. If it is an exhaust fan it will flow up this arm and down this one. Now if the fan was forcing the air in and down this side it would work the other way; the air acting on this end of the gauge would force the water down this arm and up the other arm. Each inch of water represents 5.2 pounds. By taking the amount of pressure—for instance, take a one-half inch; if it flows up one-half inch in one side and down one-half inch on the other side that would be one inch, and it is creating a pressure on the surface of that air way of 5.2 pounds. If it was two inches, it would be double, or 10.4 pounds. We know just how much pressure our fan will produce. This water gauge is used the same as a barometer to find the atmospheric pressure. We have another pressure gauge that we attach to the fan that registers the pressure by a different means.

Q. This pressure gauge attached to the fan measures in the same manner as the water gauge?

A. Yes; we put this on the fan and it is set at zero. As long as the fan is not in motion this will not run. This fan has a clock inside of it running all the time. It registers the time of day. This whole face turns around. This pin is filled with ink. It makes a mark all around that face. We put that on the fan and the fan is stopped. We start the clock and start the fan. If it is an exhaust fan it has an exhaust and pressure gauge. This gauge will not register only for an exhaust fan. We start the fan, we create a pressure and that shows the pressure. If anything happens at any time to cause that pressure to go up or down this pin will go up or down. This makes a record of the fan's action every minute of the day.

Q. Take this pressure gauge record at No. 6 for the day of the explosion. The red line starts at midnight and runs around until 10:30 a. m. and seems to be a regular line. What does that indicate?

A. That the fan was running properly and under the right conditions until that time.

Q. What occurred about 10:30 according to the pressure record?

A. We find that something had happened to cause the pressure to go up a little and then drop clean to the bottom. The fan running didn't produce any pressure—didn't get any air out of the mine and didn't produce any pressure.

Q. At 11 o'clock the red line starts and seems to continue about two inches. What does that indicate?

A. In this case it indicates that the fan house had been repaired and the fan started. The force of the explosion blew off the end of the fan house. It was stopped until repaired. It shows the amount of time the fan was out of commission. When it started up it came up a little above two inches. The reason it didn't come up where it was before was the fact that the partition had been blown out between No. 6 and No. 8 mine and No. 6 was getting air through No. 8 mine, instead of circulating around the bottom of No. 6. This is No. 8 territory. This is where the stoppings were. [Showing locations on map.] The indications on that card show the fan as bringing in air here—back of the fan—giving a short circuit, and it was producing as much air after the explosion as before; but by being able to get a shorter circuit it didn't require as much pressure to circulate the same amount of air.

Q. The greater the distance air is drawn by the exhaust the greater the friction?

A. Yes, sir.

Q. The return air courses—would they be as dry, taking it just previous to the explosion? Would they be as dry as the intake?

A. I would not think so.

Q. Why?

A. Because the intake air being dry at the time it went in the mines absorbed the dampness of the walls and roof and the floor of the mine, and in passing on around it was made warmer and damper and would deposit some of the dampness on the return air ways. The fact of having sprinkled the roadways all the time, it is evident that the air would absorb the dampness and deposit it as it goes through.

Q. The air is warmer when it comes out?

A. Warmer and damper, in cold weather.

Q. Going back to the question of velocity: What would be the effect on the dust in that mine of carrying the air at a velocity of 2700 or 2900 feet, and at 800 or 900 feet?

A. That could be seen by the jury better than I can explain it. They have noticed the difference after a rain storm. If you have a rain and a severe wind you notice how much quicker it dries up than with a moderate air.

Q. Would not that velocity tend to pick up the dust of the roadway, and off the cars, and carry it in the air? Would it not be greater at a velocity of twenty-eight hundred feet than at eight hundred feet?

A. Yes; the tendency to dry the roadway and get the dust in shape to be put in motion would be much greater.

Q. Then having seven parallel headings for the intake and return air is very much safer, so far as dust is concerned, than a single intake and return air way?

A. Yes; that is my judgment.

Q. The tendency would be much greater to carry that dust and to create dust

and dry up the haulway under the high velocity than under the low velocity as you have it in those mines?

A. Yes; in making the illustrations we use the approximate amount of air that has been going to the mines before.

Q. Did you examine the wrecked trip at the bottom of No. 6 slope?

A. To a certain extent.

Q. Did you make an examination with a view of ascertaining whether or not there had been a short circuit, and a fire or explosion had occurred at the bottom of the slope?

A. Yes, sir.

Q. Did you find any evidence of a short circuit on the wires at the bottom of the slope?

A. No, sir; I found all the wires in the portion of the wrecked trip that had been left. They said two or three cars had been pulled away from the end to clear up the roadway. I didn't examine them or the wires in contact with them, but the wires in contact with the others I did examine. I did not find any evidence of a short circuit on the wires or roof or side of the coal in close proximity to the place the trip was wrecked.

Q. Do you know whether the mining machines in use in No. 6 or No. 8 were provided with circuit breakers and blowout fuses?

A. Yes, sir.

Q. Have you ever seen any of the reports of the state mine inspector for this district?

A. Yes, sir.

Q. When was the last time that inspector visited No. 6?

A. I can't say; something like two months before the explosion.

Q. Were you there at the time of his visit?

A. I believe I was; I very often accompany him.

Q. He posts up a copy of his report at the mouth of the mine?

A. Yes, sir.

Q. Do you remember seeing his report at the mouth of No. 6?

A. Yes, sir.

Q. Look at this paper and say if that is the report he posted up at No. 6.  
[Here witness is handed paper.]

A. Yes; I would say it was.

Q. That was there at the time of the explosion?

A. I didn't see it that day; I saw it a day or two before that.

Q. Will you please read that report to the jury?

[Witness here reads report, as follows:]

"DEPARTMENT OF MINES, STATE OF WEST VIRGINIA.

CERTIFICATE OF MINE INSPECTOR.

"In compliance with the law I have inspected No. 6 Monongah mine located at Monongah, in Marion county, operated by Fairmont Coal Co., and find it to be in the following condition, on the 7 and 8 day of Oct., 1906:

"1. As to ventilation and its distribution to the working face, Good.

"2. As to drainage, Good.

"3. As to coal dust, None.

"4. As to roof and timbering, Good.

"5. As to explosive gas and black damp, slight traces of gas.

"6. As to break throughs and stoppings, Good.

"7. As to doors and brattice, Good.

"8. As to oil used, Good.

"9. As to machinery and appliances, Good.

"10. As to electric wires, Good.

"11. As to dangerous practices, None.

"12. As to ingress and egress, Good.

"13. As to general safety, Good.

"Very respectfully

"R. S. LARUE,

"Mine Inspector, First District."

[The paper above copied is here offered in evidence by Mr. Alexander, and filed as "Exhibit No. 1, with the evidence of Mr. Victor."]

Q. There has been something said about the openings. How many man ways were there at No. 8 at the time of the explosion?

A. I am not able to say.

Q. Look at the map and see?

A. There are a number open to some extent, but to what extent I do not know. Right here is a small opening at the end of the first south heading.

Q. This opening was used as a man way?

A. No, sir; but we have a man way at No. 6. The No. 8 man way was right here—a man way from the outside all the way in—made expressly for the men and stock to travel on and keep them off the haulage way.

Q. Point out any others.

A. There was an opening at the end of No. 3 room on the second left heading and first south face. There was another at the end of the second left heading on the first south face. There was also an opening at the end of room 10 off first left heading. These openings were breakthroughs to the top to let in an amount of fresh air. On the other side of the mine there was an opening at room seven on the left side of the first right heading. Also, an opening in No. 8 room on the second right heading, second north.

Q. Point out the openings in No. 6?

A. No. 6 had two openings, the slope opening coming in here at this point. From here there was a man way provided down to this point. Also down this way to the main heading and down this heading, and down that again to the main heading to provide a second opening and a way for the stock and the men to go out without using the slope haulway.

Q. Where is that opening?

A. The man way is located above the Polish Catholic church, about 400 feet from the third right heading on B face.

Q. All of these openings act as intakes for air?

A. Yes, sir.

Q. Do you remember shortly before the explosion of making some remark like this: That if you were the owners of these mines and had more money than you knew what to do with you would not know how to spend any more money in making them safe?

A. I have said I would not know how to make them any better, if I was doing it myself and had as much money as I wanted.

By District Inspector Larkin: Q. What was the report of the mine inspector as to moisture?

A. You recommended that a couple of places be cleaned up.

Q. I have reference to the condition of the atmosphere.

A. If I remember right the interior workings were generally damp—in a damp condition.

Q. Did you think it necessary at that visit to recommend any special mode of watering?

A. No, sir.

Q. You were speaking of the water accumulating in different portions of the mine. Have you any knowledge of any one being drowned?

A. No, sir.

By Mine Inspector Paul: Q. Do you recall the condition of the atmosphere along about the first of October?

A. I do not recall; it had not gotten very cold, though.

Q. You said in your testimony that any interruption—such as a fall of the roof in the mine—would cause the indicator to rise?

A. Yes, sir; but not in the mine, Mr. Paul. I said in the return air ways of the mine?

Q. Would that condition prevail if you put a door in one of the intake air ways?

A. To a certain extent; yes.

Q. That would prevent the air from circulating through the mine?

A. It would cause the air at that point to be contracted and have to flow through a smaller space.

Q. Suppose you close up both of the intake air ways, and the fan still running. Would that cause the record to rise?

A. Yes, sir.

Q. I notice on the chart for December 6th, about 10:20 a. m., that the pressure is reported as having increased about .4 of an inch. How do you account for that?

A. Don't you notice such a variance all along that pressure card?

Q. I notice a variation in the line apparently caused by the vibration caused by the index hand.

A. Yes; and also the general line which might be indicative of the movement of the trip in the mine, with and against the current of air.

Q. It appears at this point that there is quite a remarkable increase of pressure. It is uniform there, and at this point it goes up to .4 of an inch. What would that indicate?

A. It would mean a checking of the air from some cause.

Q. You think that could have been caused by the wrecked trip at the bottom of the slope interfering with the air?

A. I do not think so. The reason I don't think so is this: A part of the air way at the bottom of the slope was left open. All of the D face intake was left open all the way down in the mine. We notice that a trip standing in the slope which has an area of sixty-five feet, with one of these large cars, only makes a slight difference. When a trip is in there, we measure just a little more air in the main way than when it is out.

Q. You don't offer any explanation as to this apparent increase?

A. No, sir; except the possible explanation that the explosion from No. 8 shut the whole thing off. When it came through there it acted against the whole pressure until the end of the fan house blew out.

By District Inspector Larkue: Q. How many loaded cars were at the bottom of that space?

A. I can't say. I counted fourteen loaded cars wrecked on the middle track. The fellow who had been cleaning up the cars told me that he had taken two off of the trip that had come back down the slope, which would make sixteen cars loaded on the trip. Besides that we had another trip standing on the side-track of about the same number of cars. Two or three of the first cars had been wrecked, if I remember right.

Q. There were forty-eight cars and one motor?

A. Yes; the motor was behind that trip with another loaded trip behind it.

By Mine Inspector Paul: Q. Do you have control over the mine foreman?

A. Not other than to make recommendations. I would say that the most friendly relations exist between the mine foreman and myself, and there never has been any friction. This applies both to myself and the mine foreman and myself and the superintendent.

Q. Did you hear the testimony of Mr. Sweeney in which he admits having heard something that Mr. McGraw said to some one with reference to his severing his connection with the mines because of the dangerous conditions?

A. Yes, sir.

Q. Have you any knowledge as to the facts of the matter?

A. Not the slightest. I don't believe a word of it. Mr. McGraw and I were personal friends, and I know the company had not asked for his resignation, or I would have known it. On the other hand, I don't believe he said anything of that kind. I believe he was satisfied with his position and filed it to the satisfaction of the company.

By Mr. Alexander: Q. Did you attend a meeting of the superintendents and mine foremen in Mr. Gaskill's office on Wednesday night previous to the explosion?

A. Yes, sir.

Q. Were Mr. McGraw and Donlin there?

A. Yes, sir.

Q. How often are those meetings held?

A. Monthly.

Q. Do you usually attend?

A. Yes, sir.

- Q. What was the purpose of that particular meeting?
- A. It was held to go over a good many different things in regard to the safety of the mines—as to whether the mining laws were being complied with and a good many other different things.
- Q. Were the mine foremen interrogated by Mr. Gaskill?
- A. Yes, sir.
- Q. Do you remember whether Donlin and McGraw were interrogated?
- A. Yes, sir.
- Q. Do you remember what reply was made by them as to the safety conditions?
- A. Their reply was good in both cases. I believe that McGraw stated he had a little bit of shooting off of the solid that he had not been able to eliminate. He was instructed to eliminate all of that—that he must get rid of the men who had that practice.
- Q. Do you remember whether Mr. McGraw said anything, or gave any intimation of his intention to sever his connection with the company?
- A. He did not.

The witness, GEORGE GIBBONS, being re-called for further examination, testified as follows:

### Testimony of George Gibbons.—Recalled.

Examination by Mr. Vokelek:

- Q. You have testified before in this case?
- A. Yes, sir.
- Q. You are the pay-roll clerk at Monongah?
- A. Yes, sir.
- Q. You knew most of the men working in No. 6 and No. 8 mines?
- A. Yes, sir.
- Q. Do you know, to the best of your recollection, whether Michael Keresti was working in the mine that day?
- A. I don't know about Michael Keresti, but I know about Mike Keresti.
- Q. You have a recollection that he was employed there?
- A. Yes; in No. 6.
- Q. About the time of the explosion?
- A. Yes, sir.
- Q. Your company has made an effort to establish the number of persons working in the mines on that day?
- A. Yes, sir.
- Q. Through a census?
- A. Yes, sir.
- Q. To the best of your recollection was there any report handed down to you that this Mike Keresti was in the mine on the day of the explosion?
- A. The presumption is that he was in the mine on that day.
- Q. The purpose of this census was to ascertain, as far as possible, who were in the mine?
- A. Yes, sir.
- Q. The agent went to the houses and enquired, and then reported to you?
- A. As far as I know; yes.
- Q. Do you know a man named Mike Dorkota?
- A. Not by that name; I know a man named Dorketta; you might have the name different. I endeavored to give you the pay-roll name.
- Q. Well, we will have it as you spell it. Do you know him?
- A. Yes, sir.
- Q. Did you ascertain by this same census whether he was in the mine?
- A. Yes; the presumption is that he was.
- Q. Do you know John Peroski, or Hornock?
- A. Yes, sir.
- Q. Is there the same presumption in regard to him—that he was working on the day of the explosion?

- A. Yes, sir.
- Q. Do you know Mike Egry?
- A. Yes, sir.
- Q. The same presumption in regard to him?
- A. Yes, sir.
- Q. Do you know Joseph Fulton?
- A. Yes, sir.
- Q. The same presumption in regard to him?
- A. Yes, sir.
- Q. Do you know Frank Lobe (Ljoh)?
- A. Yes, sir.
- Q. Look at this paper; is that the affidavit you made?
- A. Yes, sir.
- Q. Well, that's the name—Lobe?
- A. Lobberetz; that's the name we have.
- Q. So far as your personal knowledge goes, have you seen any of these men since December 6th—the day of the explosion?
- A. Not to my knowledge.
- Q. Have you any recollection of hearing of any of them, or that any one has seen them since?
- A. No, sir.
- Q. On the contrary you have a presumption that they were all killed?
- A. Yes, sir.
- Q. And a good many others were killed in the mine who were not identified?
- A. Yes, sir.
- Q. And these men might be presumed to be among those not identified?
- A. Yes, sir.
- By Coroner Amos: Q. You wrote me a note about Franciszk Seyer. In the face of that note I made a death certificate and sent it to Chicago. They required something more. Can you testify as to whether that man was supposed to be in the mine and killed?
- A. His relatives report him missing. They further say that he went in the mine that morning and that he has not returned. The presumption is that he is dead.
- By Mr. Alexander: Q. Do you know Harold Trader?
- A. Yes; he worked in No. 6.
- Q. You had no personal knowledge that he was in the mine on the day of the explosion?
- A. No.
- Q. Have you any information that he was there?
- A. His brother and his wife both said he was. In fact his brother got his jacket out day before yesterday.
- Q. You have never seen or heard of him being alive since the explosion?
- A. No, sir.
- Q. Your inclination is that he was killed.
- A. Yes, sir.
- By Prosecuting Attorney Lowe: Q. Do you know what the result of that census was, in regard to the number of men supposed to be in No. 6 and No. 8 on the morning of the explosion?
- A. As far as Mr. Cunningham told me when he left, the number he received from the census was 348, but later he told me over the telephone that the Polish priest told him that there were two or three in there he had not gotten on the census.
- Q. Up to this time what number of the bodies had been recovered?
- A. Three hundred and fifty-two.
- Q. Did you look over the record and ascertain the number that had been identified and the number that had not been identified?
- A. Not yet.
- By Mr. Alexander: Q. How many bodies have been recovered, to date?
- A. As far as I know, three hundred and fifty-two.
- Q. You are the pay-roll clerk?
- A. Yes, sir.

Q. You keep the record in the office of the men who were employed in and about the two mines?

A. I don't keep the record; the foremen do that. I handle all of their time and pay.

Q. You say the census of Mr. Cunningham would be 350 or 351?

A. Yes, sir; the first census was 348 and he told me the priest told him that there were two or three, or probably four or five, that he had not gotten in the census.

Q. Assuming that to be correct, there couldn't be more than 350 or 351?

A. Not according to his census.

Q. According to your knowledge and information, would it be possible that there were more than 360 men in the two mines?

A. Not to my knowledge.

By Mine Inspector Paul: Q. Do you have any information as to whether or not bodies of men were found in either mine who were not supposed to be employed there?

A. Well, that is according to what you mean.

Q. Did you find there were bodies of men who had worked on the coke yard, or in some outside capacity?

A. And gone in the mine without us taking a record?

Q. Yes.

A. As far as I know there has only been one such case. That was not a coke man but a Polish boy.

By Prosecuting Attorney Lowe: Q. The system employed in these mines is for the men you account for through your office to have certain numbers?

A. Yes, sir.

Q. And each man who was regularly employed had a certain number under which he worked?

A. Yes, sir; the diggers did.

Q. As a matter of fact some of these men did what is called contract work?

A. Yes, sir.

Q. And it is possible that several men in that way would be working under one check?

A. Yes; but still their names would appear on the pay-roll for they would receive their pay through the contractor. I don't have their names. In this case, the man had gone in to help another one, without any record.

Q. You mean the boy?

A. Yes, sir.

Q. You think your record shows those who are working under the head man on contract work?

A. Yes, sir.

By Mr. Alexander: Q. Do you know of one case of a man going into the mine to get employment and being in there at the time of the explosion?

A. I don't remember anything about it, for I didn't give the man an order, but such a thing might be possible.

Q. Do you remember of hearing of that?

A. I remember of hearing of one case but I don't know the man's name.

By Mine Inspector Paul: Q. Are you familiar with the signature of Mr. McGraw?

A. Yes, sir.

Q. Will you state if that is his signature?

[Here witness is handed a paper.]

A. Yes; that is John's writing, here.

Q. At the top?

A. No; that is Frank Morris'.

Q. Will you read what is on that paper?

A. "No. 8 Petro Frediario, Bessilo Pillea, o. k. Morris 56 coal Jno. McGraw."

Q. Will you explain that?

A. A man comes in and is questioned by the assistant superintendent as to where he has worked. If his replies are satisfactory he is given a slip of paper like



this. He presents this paper to the mine boss under whom he wishes to work, and the mine boss gives him a room and fixes the price of coal, and gives this paper back. He brings this to the office and he gets a check and goes to work.

Q. Do you have a record of this?

A. No; they had not reached the office. If they had come through the office this man would have received checks.

Q. You don't know whether the bodies of either of these men have been identified?

A. No, sir.

By Mr. Alexander: Q. These men could not have gone to work in the mines until they got a check?

A. If they did they would get no credit for it.

Next came J. C. GASKILL, who being first sworn, testified as follows:

### Testimony of J. C. Gaskill.

Examination by Prosecuting Attorney Lowe:

Q. What is your occupation?

A. General superintendent of the Fairmont Coal Company.

Q. How long have you been general superintendent?

A. Since July 1, 1904.

Q. What are your duties?

A. Looking after the mining department generally.

Q. You have under you authority all the mines operated by the company?

A. Yes, sir.

Q. Do you personally inspect the different mines or do you work through the other inspectors?

A. I do my work through the other inspectors. Sometimes I visit the insides of the mines.

Q. Are you acquainted with No. 6 and No. 8?

A. Not with the inside, personally, all of it.

Q. Who inspected and reported to you the condition of the two mines?

A. Mr. Victor.

Q. Do you remember when he made a report to you prior to the explosion?

A. The last of November.

Q. What was that report in regard to the general safety conditions?

A. His report was good.

Q. When had you last visited the mines?

A. Outside or inside?

Q. Either one.

A. No, under the 8th and 25th.

Q. What did you do on those dates?

A. I saw the superintendent, Mr. Ruckman, and had a talk with him about the condition of things. I went over things with him about the mines. Things we always talk over with the superintendents.

Q. Did he report to you any irregularities about the mine or make any recommendation in regard to their safety?

A. No, sir.

Q. In either of those visits did you go about the mine opening, or inside?

A. I don't think so.

Q. Each mine, or group of mines, operated by the company has a local superintendent?

A. Yes, s'r.

Q. And you are at the head of that department?

A. Yes, s'r.

Q. Who is supposed to investigate the conditions of the mine in regard to material and equipment required and to make a report?

A. Each superintendent is supposed to do that.

Q. In your talk with Superintendent Ruckman was any suggestion made as to further improvements or conditions, or additional equipments?

A. I do not think so.

Q. How did the equipment compare with the other mines under your jurisdiction?

A. Good; compared with any of them.

Q. What time did you arrive there the day of the explosion?

A. About 10:45 or 15:50.

Q. Which mine did you go to and work at after that?

A. I went to No. 6 first.

Q. How long did you stay there?

A. Until that night about 1 o'clock—the morning of the 7th. Then I went to No. 8. I had visited No. 8 in the afternoon of the explosion, and I went back at 1 o'clock and remained there.

Q. Assisting in the work of getting in the mines?

A. Yes; and rescuing the bodies.

Q. While you were at No. 6 did you enter the mine opening?

A. Yes, sir.

Q. How far down did you go?

A. To the bottom of the slope.

Q. What did you find there?

A. The wrecked trip.

Q. In what condition was that trip?

A. Piled up pretty bad—a lot of cars piled up just like any wrecked trip.

Q. How were the cars in relation to each other. Were they piled on top of each other or cross-ways of the room?

A. Yes; cross-ways, and piled up generally.

Q. How much of the entrance way was blocked?

A. It was pretty well filled up but not so bad but what we could pass.

Q. How could you pass?

A. By climbing over.

Q. Were you about the cabin at the foot of the slope?

A. Yes, sir.

Q. What did you find?

A. Three dead bodies.

Q. In what condition were they?

A. I didn't make any minute examination, but two were lying on the pavement—one with his head toward the door and one away from the door. The other body was sitting on a bench but had kind of slipped down.

Q. From their appearance would you judge that these men met their death by violence or suffocation?

A. It looked to me like suffocation—afterdamp.

Q. Did you look closely at the faces or hair of the dead men?

A. No, sir.

Q. Did you go any further into the mine?

A. Yes; down around the trip. I came back out to get the men to get the roadway opened, and get the rescuers started in.

Q. What inspection, if any, did you make about the electrical wires and equipment?

A. None at that time.

Q. Have you since?

A. Yes, sir.

Q. When?

A. Just about three days after we got the bodies.

Q. Had the wrecked trip been removed?

A. Most of it.

Q. And the wires repaired?

A. I don't think so.

Q. What condition were the wires in?

A. Very good.

Q. Did you notice any difference in the wall or roof of the mine, or anything to denote a short circuit?

A. No, sir.

Q. Did you look for that?

A. Yes, sir.

Q. Have you inspected the interior of those two mines since?

A. I inspected No. 8—part of it—but not No. 6.

Q. How much experience have you had as a practical mining man?

A. As a miner?

Q. In any capacity connected with mining coal.

A. I was a miner and worked in West Virginia and Pennsylvania up until July, 1886. At that time I was made mine foreman at Montana. I was mine foreman until 1891, when I was made superintendent there. In 1892 I was made superintendent of the West Fairmont Shaft mines along with the Montana mines. The same year I assisted in laying out and opening up the Murray mine. I was superintendent of the Shaft mine for two years and still remained superintendent at Montana until the Fairmont Coal Company was formed.

Q. Have you made an inspection of No. 6 and No. 8 Monongah with a view of ascertaining the cause of the explosion?

A. No; not any minute inspection. I have not inspected No. 6. In No. 8 I went over the important part where it had been reported to me that the explosion might have occurred.

Q. What were those parts and what did you find?

A. The two principal parts where it looked that the explosion might have occurred was in the first south, second right and the other was in the third left second north.

Q. What was the condition of those places?

A. The condition in the first south, second right, where it looked more like the explosion had occurred, was in the cross cut between No. 21 and 22 rooms, and had been a powder explosion. It had been pretty heavy and charred the place for some distance around it.

Q. Was that powder explosion from a shot or from a powder can?

A. From a powder can.

Q. In what part of the room?

A. In the second cross cut between 21 and 22.

Q. What were the conditions at the other place?

A. There had been a shot fired in the face of the third left heading, and it had too much powder in it. It looked that way to me. It had brought down the coal. It was what we call a very good shot but looked like it had too much powder.

A recess was here taken until 1:30 p. m.

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#### JANUARY 10TH—AFTERNOON SESSION.

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Next came C. R. JONES, who being first sworn, testified as follows:

#### Testimony of C. R. Jones.

Examination by Mr. Alexander:

Q. Where do you live?

A. At Morgantown.

Q. What is your occupation?

A. Mechanical and electrical engineer.

Q. In one of the departments of the University at Morgantown?

A. Yes, sir; I have charge of the Mechanical and Electrical Engineering department.

Q. Have you any appliances in your department for testing purposes?

A. Yes, sir; we have.

Q. Look at this pin and say whether or not it has been tested in your department?

A. This is the pin that Mr. Hungerford brought to me the other day and together we tested it on one of our machines.

Q. Give the jury the results of that test.

A. There is a visible set at 3700 pounds, or the maximum load was 50,000 pounds, and it bent in the shape that you see it now.

Q. Judging from the force of the test, and your experience in testing, would it have stood a greater test than 5000 pounds if the machinery had been larger?

A. I would say it would not have. It stood 50,000 pounds and the load remained practically stationary. Probably the load would have dropped off at more.

By Mine Inspector Paul: Q. Is this a steel or an iron pin?

A. It is steel.

Q. Did you make a test to determine its composition?

A. We did not.

Q. Do you know what carbon steel it might be known as?

A. I do not know. I would class it as steel. This is somewhat higher steel than ordinary carbon steel.

Q. Is high carbon steel more brittle than low carbon steel?

A. Yes, sir.

The examination of J. C. GASKILL was here resumed by Mr. Lowe and the witness testified as follows:

### Testimony of J. C. Gaskill Resumed.

Q. Not having made a careful examination of No. 6 mine are you able to give to the jury your idea as to what caused the explosion?

A. I cannot.

Q. Why didn't you examine No. 6 mine?

A. I didn't have the time after the bodies were rescued. During that time I was helping with that work and after that I was busy and didn't have the time.

Q. During these interviews you had with Mr. Ruckman and other officials of the company, did you talk about the matter of a more extensive plan of watering the mines in order to keep down the dust?

A. Yes, sir; we took up the plan of watering the dusty mines—watering the headings but not watering the rooms.

Q. Why were the rooms not watered also?

A. It had never been the custom and I never considered it was necessary.

Q. Would there not be considerable accumulation of coal dust in the rooms themselves?

A. There would be some but not so much as in the heading.

Q. Are you familiar with the method of shooting coal?

A. Yes, sir.

Q. About how much powder is usually required in shooting a shot in the face or entry that has been undermined by a machine?

A. In the first shot they generally use about three pounds of powder.

Q. How about the middle shot in a room?

A. About the same.

Q. Then how much is used on rib shots?

A. Generally about a pound and a half. It would depend on the class of coal you have to shoot.

Q. How could the dust of a mine become inflamed throughout the mine in your judgment?

A. Well, it might become inflamed from a powder explosion—an overcharged shot or anything that would create enough heat to start the explosion.

Q. The dust that usually takes part in dust explosions in a mine: Where

is it usually found?—on the pavement or in the air in suspension or on the ribs of coal?

A. I would think that it would be found in the air and on the ribs of coal, and possibly on the roof, the mine props and such things as it might lodge on.

Q. Do you keep on hand a record of the mine foreman's measurement of air at the No. 6 and No. 8 mines?

A. We didn't require the mine foreman to measure the air where we had fire bosses except when the new State mining law went into effect and then we complied with the law of the State.

Q. Can you produce the record books for the mine foreman's air measurement for Monongah mines No. 6 and No. 8?

A. Yes, sir.

[Said books are here produced.]

Q. I hold here the mine foreman's record of air measurements. Will you read the report of the last date for No. 6 mine?

A. He does not report to my office. We have never required the mine foreman to report to my office where we have fire bosses to report. The fire boss and the mine foreman report on the same sheet.

Q. Is this the record of the mine foreman's report at No. 6 mine?

A. Yes, sir; this is the State record. This is made every two weeks and kept at the office.

Q. Please read the record that you have there.

[Witness here reads the record referred to, which is in the following words and figures, to wit:]

Use Indelible Pencil.

Measurement to be taken on or near the 1st and 15th of month.

## MINE FOREMAN'S RECORD OF AIR MEASUREMENTS.

NAME OF MINE.....Monongah No. 6 OPERATED BY .....Fairmont Coal Co.

POST OFFICE .....Monongah in the County of Marion, West Virginia.

## HOW IS MINE VENTILATED? Fan.

## IS FAN EXHAUSTING OR BLOWING? Exhaust.

Year of 1907 DATE	Name of Place Where Current Was Measured	Name of *Current	Revolutions of Fan per Minute	CUBIC FEET OF AIR				No. of Employees		Signature of Mine Foreman.
				At Intake	At Face of Entry	At Outlet	At Last Breakthrough	By Day	By Night	
Oct. 30	4th Face		224	81270				224	21	
				76300						
			Total	157570		157800				
	6th Left E Face						14300			
	5th Left E Face						16750			
	4th Left E Face						17100			
	G Face				17100					
	H Face				14950					
	6 Left E Face						17500			
	1 Left E Face						12300			

THOS. DOXLEY.

\*Name of Current—Main, 1st Split, 2nd Split, East, West, Main Return, etc.

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Witness, (continuing): They generally make a measurement of about four to six places.

Q. This record is signed by whom?

A. Thomas Donlin.

Q. Here is a mine foreman's record book which purports to be from No. 8 mine. Please read that record.

[Witness here reads the record referred to, which is in the following words and figures, to wit:]

Use Indefinite Period.

Measurement to be taken on or near the 1st and 15th of month.

# MINE FOREMAN'S RECORD OF AIR MEASUREMENTS.

Name of mine, Monongah No. 8.

Operated by Fairmont Coal Company.

Postoffice, Monongah, West Virginia, in the county of Marion, West Virginia.

HOW IS MINE VENTILATED? Fan.

IS FAN EXHAUSTING OR BLOWING? Exhausting.

Year of 1907. DATE	DIAMETER OF FAN SIZES. Name of place where current was measured.	Name of *current.	Revolutions of Fan per minute	CUBIC FEET OF AIR.			No. of Employees.	
				At Intake.	At Face of Entry.	At Out- let.	At Last Break Through.	By night.
Oct. 1.	2nd R. on No. 1 South Face	No. 1	71	19280			15640	16
	3rd R. on No. 1 South Face	No. 2		16400			16400	11
	1st R. on No. 2 North Face	No. 3		12460			12460	7
	2nd R. on No. 2 North Face	No. 4		12240			12240	9
	1st Left No. 2 North Face	No. 5		17600			12480	14
	Main North Face Split	No. 6		18400			13680	34
	Main Heading Split	No. 7		36000			33480	39
	2nd Left on No. 2 North Face	No. 8		16700			12460	15

\*Name of Current.—Main, 1st Split, 2nd Split, East, West, Main Return, etc.

Signature of Mine Foreman,

JOHN MCGRAW.



- Q. By whom is that record signed?
- A. John M. McGraw.
- Q. These measurements were made by the mine foremen who are now dead?
- A. Yes, sir.
- Q. How do these measurements check up with the measurements made by the fire bosses?
- A. I have never compared them. I do not have this book come to my office and I don't know.
- Q. Why do you make these records? Are they required by law?
- A. Yes, sir.
- By Prosecuting Attorney Lowe: Q. I don't know whether I understood you or not awhile ago. Did you say the watering of the rooms was not done because you considered it unnecessary or because it is impractical?
- A. Well, it is impractical.
- Q. Why?
- A. Well, it would be a very hard thing to do on account of being hard to get a water car in there, and you would have to have some means by which you could spray the water over the rooms—pump arrangements and so on.
- Q. You have one car of that kind in No. 6 or No. 8 that works with a pump, haven't you?
- A. We haven't had; no, sir.
- Q. There are cars of that kind made, are there not?
- A. I believe there is, yes, sir; but you have to have power to run it with. On the main headings we have the power to run it with but we have not in the rooms.
- Q. The blaze—in case of a blow out shot—would extend as far back as any other blaze goes by shooting coal, would it not?
- A. A blow out shot might extend back more than fifty or sixty feet.
- Q. The watering of the room would only have to extend fifty or sixty feet from the face in order to avoid the danger in shooting, would it not?
- A. I don't know about that.
- Q. A blow out shot would create a blaze bigger and extend further than any other kind of a shot, would it not?
- A. A blow out shot; yes, sir.
- Q. About what would be the distance?
- A. It might be from fifty to sixty feet.
- By Mr. Alexander: Q. How long have you been working about coal mines?
- A. About thirty-five years.
- Q. Have you ever worked in any region except Fairmont?
- A. Yes, sir; in Pennsylvania.
- Q. In what capacity?
- A. Mining coal.
- Q. As a miner?
- A. Yes, sir.
- Q. In any other capacity?
- A. No, sir.
- Q. You have been general superintendent for the Fairmont Coal Company ever since its organization?
- A. Yes, sir.
- Q. You were general superintendent at the time Monongah No. 8 was laid out and started?
- A. Yes, sir.
- Q. It is a part of your duties to plan a development and laying out of the mines?
- A. Yes, sir.
- Q. And after you have planned it your engineers lay it out?
- A. They lay it out according to my ideas.
- Q. Did you make the plans upon which Monongah No. 8 was laid out and upon which it has been developed?
- A. Yes, sir.
- Q. Can you tell the jury about what acreage that plan was laid out to develop?
- A. About 1,600 or 1,700 acres.
- Q. About how many acres was No. 6 planned to develop?

A. About the same.

Q. How frequently do you visit the mines over which you are general superintendent?

A. I have no regular time but it would depend upon whether I needed to visit them. Sometimes I visited them, may be, once a week—different mines—and sometimes twice a week, in case anything was needed or we were doing any construction work or opening up a new plan or anything occurred about the mine that might call me there inside or out.

Q. When did you last visit Monongah mines No. 6 and No. 8?

A. Do you mean to go inside or just visit the outside?

Q. Either one.

A. I had visited Monongah No. 6 last on November 25th before the explosion.

Q. Were you in the mine at that time?

A. I was not.

Q. When did you last visit No. 8?

A. A short while before that.

Q. Were you in that mine at that time?

A. No, sir.

Q. Were you in No. 6 or No. 8 during the year 1907?

A. Yes, sir.

Q. About how many times?

A. I was in No. 8 about three times.

Q. Were there other mines in this region that you laid out and planned?

A. Yes, sir; the Shaft, Murray and Montana.

Q. Your department has charge of the operation of the mine and the making of provision for the safety of the mines and the people who are employed in the mines. Is that correct?

A. Yes, sir.

Q. You have a number of inspectors in your department now, I believe?

A. Yes, sir; we have four.

Q. Mr. Victor is chief?

A. Yes, sir.

Q. Tell the jury what the object was in putting on the inspectors?

A. When we first started out we had one inspector. When the Fairmont Coal Company first started out I was general superintendent. I was mine inspector on up to July, 1902, when Mr. W. K. Bailey, of Ohio, was put on as assistant general superintendent, but his duties were principally mine inspection. In October, 1905, Mr. Bailey resigned and in December Mr. David Victor was put on as chief mine inspector. The first of January, 1906, the work increased and we put on C. O. Brooks, of Clarksburg, as assistant mine inspector. In August, 1906, Mr. Tarleton was made another assistant mine inspector, and January 1, 1907, J. C. Thompson was put on as assistant mine inspector.

Q. What was the object in having these inspectors?

A. In order to inspect the mines oftener, look over the safety conditions and the proper method of mining coal, the recovery of the largest per cent of coal, and give them general inspection.

Q. When these inspectors make an examination of a mine what do they do after that examination?

A. They make a written report of it to my office.

Q. What do you do with that report?

A. I look that report over, write the superintendent a letter and send him two copies and in that letter I call his attention to everything in that report that ought to be done—such as looking after the safety conditions, dust, air, ventilation, etc. I make particular request to furnish the mine foreman with an extra copy and instruct him to carry out these directions.

Q. After the inspector has visited the mine and made report to you with certain recommendations, and you have written the superintendent of that mine calling his attention to the recommendations and given him an extra copy of the inspector's report, is the inspector then directed to follow this up and see if these recommendations are carried out?

A. Yes, sir; he gives a copy of the letter to the superintendent and he knows

just what has been said to him and, if it is not carried out, he has the right to report again that such and such recommendations are not being carried out.

Q. So you are in position to follow these recommendations and see that they are carried out?

A. Yes, sir.

Q. Do the mine foreman at the mines and the fire boss make any report to you or to your department?

A. The fire boss makes a report every day—filed on a weekly sheet—to my office. The mine foreman of the mines, where we have fire bosses, does not report to my office.

Q. Does the mine foreman join in this report or the same form of report as the fire boss?

A. Yes, sir.

Q. Look at this and tell the jury whether or not these are the reports made to you by the mine foreman and fire boss for No. 6 mine?

A. This is the same class of report. I don't know whether this is a copy or the original. This is made daily and this side is made every night. We have a day and night fire boss. On the same sheet we have the mine boss's report signed by him—Tom Donlin. This is for No. 6.

Q. This is the regular form of report, is it?

A. Yes, sir.

Q. The two sheets of this bunch seem to be up to December 6th, 1907?

A. Yes, sir.

Q. These reports are made weekly, you say?

A. This whole sheet comes in weekly. A copy is kept at the mines and a copy is sent to my office, or, rather, the original is kept at the mines.

Q. You will notice in the book in which the mine foreman's report is made—which is required by the State—that it is not up to date.

A. Yes, sir.

Q. And the reports made to you or to your office are up to the date of the explosion?

A. Yes, sir.

Q. The other report which I now hand you is for mine No. 8, up to the same date, December 6th?

A. Yes, sir. You will notice that the mine foreman has the whole record, but for some reason he has not made it up to date on the State book. He has a copy, and I suppose he intended to copy it on there and send it down. I might add further that when this fire boss's reports come into my office I check them over and they are then sent to the chief mine inspector's office. He rechecks them and, if there is anything special in it, I call his attention to that. He also checks it, and if there is something I have not checked up he calls my attention to it and between us we aim to take up everything that is required.

Q. To what office are the pressure gauge records from the fans from No. 6 and No. 8 mines delivered?

A. To my office, daily.

Q. I wish you would look at these records for mine No. 6—which are for December 2nd, 3rd, 4th, 5th and 6th, 1907—and say whether these record gauges have been delivered to your office?

A. These were not delivered to my office at the time of the explosion and they were gotten at Monongah. Sometimes they fail to send them in every day and we get four or five of them, but it is the idea to send them every day.

Q. The same is also true of No. 8 record gauges?

A. Yes, sir.

Q. Who is the present state mine inspector for this district?

A. Mr. LaRue.

Q. Who was his predecessor?

A. A man by the name of E. V. Byrne.

Q. After Mr. LaRue has visited the mines of the company and made an inspection tell the jury whether or not he furnishes you with a certificate of his inspection?

A. Yes, sir; he sends me a copy of a certificate signed by him, the same as he leaves at the mines.

Q. Look at that certificate for mine No. 6 and tell the jury whether or not it was sent to you?

A. The inspection was made on the 7th and 8th of October.

Q. Please read that certificate to the jury.

[Witness here reads the said certificate to the jury, which is in words and figures following, that is to say:]

DEPARTMENT OF MINES, STATE OF WEST VIRGINIA.

Certificate of Mine Inspection.

In compliance with law I have inspected the No. 6 Monongah mine, located at Monongah in Marion County operated by Fairmont Coal Co., and found it to be in the following condition, on the 7th and 8th days of October, 1907:

1	As to ventilation and its distribution to working face	Good
2	As to drainage	Good
3	As to coal dust	None
4	As to roof and timbering	Good
5	As to explosive gas and black damp	Slight traces of gas
6	As to breakthroughs and stoppings	Good
7	As to doors and brattice	Good
8	As to oil used	Good
9	As to machinery and appliances	Good
10	As to electric wires	Good
11	As to dangerous practices	None discovered
12	As to ingress and egress	Good
13	As to general safety	Good

(Deliver to operator.)

Very respectfully,

R. S. LARUE, Mine Inspector, First District.

[A copy of which paper is here filed as a part hereof, marked "Gaskill No. 1".]

Q. Please look at this certificate, which is for Monongah No. 8, and tell the jury whether or not that was sent to you?

A. Yes, sir; it was sent to me and received by me on September 27, and it is the same as the other one just read.

Q. I wish you would read that one for No. 8.

[Witness here reads said certificate, which is in words and figures following, that is to say:]

DEPARTMENT OF MINES, STATE OF WEST VIRGINIA.

Certificate of Inspection.

In compliance with law I have inspected Monongah No. 8 mine located at Monongah in Marion County, operated by Fairmont Coal Co., and find it to be in the following condition, on the 27th and 28th day of September, 1907.

1	As to ventilation and its distribution to working place	Good
2	As to drainage	Good
3	As to coal dust	None
4	As to roof and timbering	Good
5	As to explosive gas and black damp	Clear
6	As to breakthroughs and stoppings	Good
7	As to doors and brattice	Good
8	As to oil used	Fairly good
9	As to machinery and appliances	Good
10	As to electric wires	Good
11	As to dangerous practices	None
12	As to ingress and egress	Good
13	As to general safety	Good

(Deliver to Operator.)

Very respectfully,

R. S. LARUE,

Inspector First District.

[A copy of which is here filed as "Gaskill No. 2", as part hereof.]

Q. Here is a report made by Mr. LaRue, for Monongah No. 8, made on July 19 and 20. Please state if this report was sent to you by Mr. LaRue?

A. Yes, sir.

[Which said paper is in words and figures following, that is to say:]

DEPARTMENT OF MINES, STATE OF WEST VIRGINIA.  
Certificate of Inspection.

In compliance with law I have inspected the Monongah No. 8 mine located at Monongah in Marion County, operated by Fairmont Coal Co., and found it to be in the following condition, on the 19th and 20th days of July, 1907:

1	As to ventilation and its distribution to working face	Good
2	As to drainage	Good
3	As to coal dust	None
4	As to roof and timbering	Good
5	As to explosive gas and black damp	Clear
6	As to breakthroughs and stoppings	Good
7	As to doors and brattice	Good
8	As to oil used	Good
9	As to machinery and appliances	Good
10	As to electric wires	Good
11	As to dangerous practices	None discovered
12	As to ingress and egress	Good
13	As to general safety	Good

(Deliver to operator.)

Very respectfully,

R. S. LARUE,  
Mine Inspector First District.

[A copy of which is here filed as "Gaskill No. 3".]

Q. Here is another report signed by Mr. LaRue. Please read that.

[The paper is here read to the jury, which said paper is in the words and figures following, that is to say:]

CERTIFICATE OF MINE INSPECTION, STATE OF WEST VIRGINIA.

No. 6. Monongah, W. Va., July 23, 1907.  
To Fairmont Coal Co.

Sir: On the 22nd and 23rd days of July, 1907, I inspected your Monongah Mine in Marion County and found it to be in the following condition:

1	As to ventilation	Good
2	As to drainage	Good
3	As to timbering	Good
4	As to machinery	Good
5	As to gasses	Clear
6	As to oil used	Good
7	As to general safety	Good

Very respectfully,

R. S. LARUE,  
Mine Inspector First District.

[On which are the words "Received July 29, 1907, J. C. Gaskill", which paper is here filed as a part hereof marked "Gaskill No. 4."]

Witness (continuing): This is another kind of a report and does not mention dust.

Q. Please look at this letter, which bears date May 6th, 1907, and which purports to be sent by E. V. Byrne and directed to Mr. James W. Paul, Chief Mine Inspector, and tell the jury whether or not this letter, with the accompanying copies of Mr. Byrne's reports as to No. 6 and No. 8 mines, was received by you?

A. Yes, sir; that was received by me.

Q. Please read that letter, Mr. Gaskill.

[The said letter is here read to the jury, as follows:]

STATE OF WEST VIRGINIA.

Department of Mines.

Edward V. Byrne,

Inspector of Mines,

First District.

Elm Grove, May 6, 1907. 190—

Mr. James W. Paul,

Chief Mine Inspector,

Charleston, W. Va.

Dear Sir:

Herewith you will please find inclosed the reports of the different mines that was inspected by me last month, and the accidents that occurred on my district last month.

They has been no recommendations offered as to the Fairmont Field as i consider that the mining law is being complied, and consider that the mines belonging to the Fairmont Co. is in a better condition than they have ever been here before.

The Marion mine belonging to the Fairmont Coal Co. located in Marion county, is intirley worked out and abanded, and for which reason you will get no more report of the Marion mine.

Hoping that the same will meet with your aprovie.

Very truly yours,

E. V. BYRNE.

Mine Inspector.

E. V. B.

Witness (continuing). This letter was received by me May 7.

[A copy of which letter is here filed marked "Gaskill No. 5".]

Q. To that is attached two reports, or copies of reports?

A. Yes, sir.

[The said reports were here read as follows:]

CERTIFICATE OF MINE INSPECTION, STATE OF WEST VIRGINIA.

Monongah, W. Va., April 24, 1907. 1900

To the Fairmont Coal Co.,

A. J. Ruckman, Supt.

Sir:—On the 24th day of April, 1907, 190.. I inspected your Monongah No. 6 mine in Marion County and found it to be in the following condition:

1 As to ventilation	Good
2 As to draining	Good
3 As to timbering	Good
4 As to machinery	Good
5 As to gases	Just a trace, J1
6 As to oil used	Good
7 As to general safety	Good
I recommend	Nothing

Very respectfully,

E. V. BYRNE.

Mine Inspector First District.

[Which said paper is here filed, marked "Gaskill No. 6".]

CERTIFICATE OF MINE INSPECTION, STATE OF WEST VIRGINIA.

Monongah, W. Va., April 22, 1907.

To the Fairmont Coal Co.

A. J. Ruckman, Supt.

Sir:—On the 22nd day of April, 1907, 190 I inspected your Monongah No. 8 mine in Marion County and found it to be in the following condition:

1 As to ventilation	Good
2 As to drainage	Good
3 As to timbering	Good
4 As to machinery	Good

5	As to gases	Just traces
6	As to oil used	Good
7	As to general safety	Good

I recommend nothing as I consider that the mining law is being complied with.

Very respectfully,

.....  
 Mine Inspector.....Dist.

[Which paper is here filed marked "Gaskill No. 7".]

Q. Do you remember of writing a letter dated May 20, 1907, to Mr. E. V. Byrne, regarding the use of safety lamps in certain mines?

A. Yes.

Q. Look at this and state if it is a copy of the letter you wrote to Mr. Byrne?

A. Yes, sir; it is.

Q. Look at the next sheet and state if this is a copy of a letter which you received from Mr. Byrne in reply to your letter?

A. Yes, sir; it is.

[Copies of said letters are here filed as parts hereof, marked "Gaskill No. 8" and "Gaskill No. 9" respectively, which said letters are in the following words and figures, that is to say:]

May 20, 1907.

Mr. E. V. Byrne, State Mine Inspector, 1st District,  
 Elm Grove, W. Va.

Dear Sir:—

Section 14, of the New Mining laws, which go into effect soon, says in part—"Mines in which explosive gas is generated in dangerous quantities shall be worked with locked safety lamps."

Now, we have never considered that we had any mines that generated gas in dangerous quantities. Nevertheless, we want to ask your permission to use open lights in our Shaft, New England, Gaston, Monongah No. 6 and No. 8 mines. These five mines, you understand, we have fire bosses in.

Will you please visit us as soon as possible, and make such arrangement as you feel justifiable in making, as we do not want to try to evade the law in any way, as we consider it our duty to be governed according to the law.

Kindly advise what day you can be here, so that I can make arrangements to be at home to meet you.

Yours very truly,

General Superintendent.

STATE OF WEST VIRGINIA.

Department of Mines.

Edward V. Byrne,  
 Inspector of Mines, First District.

Elm Grove, W. Va., May 30, 1907.

Mr. J. C. Gaskill,

General Superintendent of the Fairmont Coal Co.,  
 Fairmont, W. V.

Dear Sir:

Section 14, of the Mining Law, does not apply to any of your mines that you have menched, and it will be all right for you to operate the same as heretofore, as I consider that explosive gas is not generated in dangerous quantities, to the men working in the mines, and just use the open lights but I will be in Fairmont sometime the first of the month and will call at your office, hoping this will be satisfactory to you, as I have been very busy, and wish to be excused for not answering sooner.

Very truly yours,

E. V. B.

E. V. Byrne, Mine Inspector.

Mr. Alexander: We desire to offer in evidence this detailed report of the fire bosses for No. 8 Monongah mine back to and including the week ending October 6, 1907, and the same for mine No. 6.

Q. About what is the capacity of the fan at No. 8, if it was run at its full capacity?

A. About 400,000 cubic feet of air per minute.

Q. Did you ever have any test made of this fan?

A. Yes, sir.

Q. Look at this blue print and say whether this is a copy of the test made of that fan?

A. Yes, sir; it is.

[A copy of said record of test of Lepley patent mine fan is here filed as a part hereof, marked "Gaskill No. 10".]

By Mine Inspector Paul: Q. In your experience in the mines of the Fairmont field, have you known of any miner or men to be burned by the accidental explosion of powder cans or flasks?

A. Yes, sir.

Q. Inside of the mine?

A. Yes, sir.

Q. Did the powder explosion cause a dust explosion in connection with the powder?

A. No, sir; no dust explosion.

Q. Were they in mines that were any more safe than No. 6 or No. 8 were considered to be?

A. No, sir; we had one of the accidents in No. 8 mine.

Q. On the morning of the explosion were No. 6 and No. 8 mines considered to be in a safe condition?

A. According to the fire boss's report and according to my judgment they were in as good condition as they ever had been.

Q. I believe you have stated that an explosion did occur in No. 6 and No. 8 mines on December 6th?

A. Yes, sir.

Q. Do you think there are some dangers about mines about which little appears to be known?

A. That appeared up there.

Q. What are the appliances on the end of the rope that attaches to the cars in No. 6 for pulling the cars up the slope?

A. A clevis and a pin. The clevis is supposed to be 2½ inches.

Q. Look at that pin and state whether or not you think that pin had been inserted before the trip started from the bottom of the slope?

A. I would not be able to say.

Q. How far would this pin naturally go down in the clevis?

A. This part [indicating on the pin] ought to go through the clevis. Of course sometimes even when a pin is put in, it will jump out by the jerk on it. I have known many a one to do so.

Q. What is the length of that pin now?

A. Five inches.

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Next came W. H. BAILEY, who being first sworn, testified as follows:

### Testimony of W. H. Bailey.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. In the State of Delaware.

Q. Have you been in the employment of the Fairmont Coal Company at any time?

A. Yes, sir.

Q. In what capacity?

A. With the title of assistant general superintendent, occupation of mine inspector.

Q. During what time?

A. From August, 1902, until October, 1905. I think is correct.



Q. In the performance of your duties did you have occasion to visit Monongah mines No. 6 and No. 8?

A. No. 8 mine was not then developed but was in the process of development. I visited No. 6.

Q. When were you last in No. 6 mine prior to the date of the explosion on December 6th?

A. Shortly before I resigned from the company. I can't tell you exactly the date.

Q. Were you in No. 6 or No. 8 mines shortly prior to the explosion?

A. No, sir.

Q. Have you been in either No. 6 or No. 8 mine since the explosion?

A. Yes, sir.

Q. Did you aid in any rescue work?

A. No, sir.

Q. What is your present occupation?

A. Farmer.

Q. Did you make sufficient examination of No. 6 and No. 8 mines to enable you to determine the cause of the explosion?

A. I made an examination with that purpose in view.

Q. Have you arrived at any conclusion of the cause?

A. No, sir; not positively.

Q. Then you mean to say that you can't confirm your judgment by any eye witnesses?

A. No; I cannot.

Q. Would you care to have an opinion as to the cause of the explosion, assuming in the first place that there were coal mines there, and men working in them.

A. No, I don't think I would, Mr. Paul.

Q. What were some of the conditions you observed to indicate that an explosion had occurred?

A. Tremendous temperature having developed in certain sections of that mine would lead to that conclusion, and the evidence of force.

Q. What are some of the important evidences to be ascertained in a mine in an effort to ascertain the probable point at which an explosion might have originated?

A. Well, I think that temperature would be the greatest.

Q. Would you care to state whether or not in your judgment the explosion may have originated from the presence of explosive gas?

A. May have?

Q. Yes.

A. No; I would not consider this was due to explosive gas known as fire damp.

Q. From evidence found in the mine can you state whether coal dust was a factor in the explosion?

A. I will answer that question by saying that I never saw a coal dust explosion in a mine.

Q. Do you believe coal dust will explode?

A. Possibly, under certain conditions; yes.

Q. Have you examined other mines in which there was an explosion which was supposed to be a dust explosion?

A. No, sir.

Q. From the high temperatures you found evidence of having been in the mine, would, in your judgment, these temperatures have had the effect of distilling any gas or causing any gas to be in the mine?

A. Most assuredly.

Q. Do you think this distilled gas would have been instrumental in propagating the explosion in the mine?

A. If ignited, most assuredly.

Q. From your observation in No. 6 and No. 8 mines did you find any condition in there that would lead you to believe that the temperature would have been sufficient to have distilled any gasses?

A. Yes, sir.

Q. You have stated that under certain conditions you believe coal dust will explode. Will you please state what those conditions are?

A. If coal dust was held in suspension or came in contact with flame, I think

there would be instantaneous combustion produced there, just as though you would throw a shovel full of very fine coal in the midst of a fire; I don't think that it would ever reach the bed of the fire.

Q. Would an ordinary miner's torch inflame the dust?

A. I couldn't say.

Q. You have stated that the dust in suspension might be inflamed by coming in contact with the flame. If that dust should be inflamed would that in turn have a tendency to inflame the dust that might be on the ribs and floor of the mine?

A. On the ribs and roof. I would not think it necessarily would take it up off the floor. That would not be in its line of travel.

Q. Do you find evidences in No. 6 and No. 8 mines that would lead you to conclude there had been an excessively high temperature created by reason of an explosion of powder which might probably inflame any dust in suspension or on the ribs of the coal?

A. Yes, sir; on second right on first South and second cross cut between rooms 21 and 22.

Q. What evidence did you find there of any unusual occurrence?

A. I found a greater amount of coke formed in that section than in any other part of the mine and found the parts of two exploded powder cans in that section. We found where the flame had lapped down to the bottom of the seam of that section while it is not found in any other part.

Q. Have you ever seen a blow out shot in any of these mines in this neighborhood, or a shot fired in the coal which was overcharged with powder?

A. Do you mean that during my inspection of mines I have discovered this evidence, prior to this explosion?

Q. Yes, sir.

A. I would not say blow out shots but overcharged shots.

Q. Were you a witness to the shot?

A. Not exactly; I was in the neighborhood where it happened.

Q. Do you know if any of these shots you have observed that you speak of caused a flame to be projected into the room or entry?

A. I think the only one I observed was in an entry and it did give off some flame; yes.

Q. If the conditions were favorable with respect to coal dust, do you think the projecting of a flame of that kind into the dust would be sufficient to ignite it?

A. Not the one I saw.

Q. In your recent examination of Monongah No. 6 and No. 8 did you discover evidence of any improperly fired holes?

A. Yes, sir; two.

Q. Where were they?

A. One was what we would term a blown out shot, and what is commonly recognized as a blown out shot, in room 31, second right off of first south, where the shot was put in on the solid. It could not possibly have done the work, no matter how much powder you would have put in. In room 30 an overcharged shot, in my opinion, had been put in which overdid its work. That was on the same heading.

Q. You say the shot in room 30 had done its work?

A. Yes, sir; clearly.

Q. Where else in the mines did you find evidence of shots being blown out or overcharged?

A. No where that I remember.

Q. Did you examine the face of third left entry off of second North in No. 8?

A. Yes, sir; two or three times.

Q. What would you say about the shot that was fired in that heading?

A. I would call it a very good heading shot.

Q. Did you make careful examination of the hole that was left in the coal on the face of third left?

A. Yes, sir; I looked at it.

By District Inspector LaRue: Q. When did you commence your examination of these mines?

A. I think I got here on the 12th; I think it was on the Wednesday following the explosion.

Q. You are not familiar with the first conditions of these mines?

A. No, sir; not as they existed immediately after the explosion.

Q. Do I understand you to say that you do not advance an opinion as to the initiatory point as to the explosion?

A. I don't think that was ever asked me.

Q. I understood you to say that you had no opinion as to where it started?

A. The question was asked me, "What were some of the important evidences to be ascertained in determining the probable point of starting?" and my answer was that I thought that the temperature in some location in some of the mines was the greatest.

Q. Do you think that if the rooms and entries of these two mines had been properly watered that this present explosion would have occurred?

A. What do you mean by being properly watered?

Q. I mean to have all possible dust dampened.

A. I could see nothing that would prevent it.

Q. From a discharge of powder?

A. You can never dampen all the dust—not unless you stop working—and unless you have a constant spray on the coal the dust is rising and more or less will be in suspension.

Q. If the dust had all been cleaned out of the places could it have occurred?

A. You can't do that unless you quit working entirely and sweep it up and whitewash.

Q. Under what conditions then would a mine explode?

A. I don't know what you mean.

Q. We will say the mine was watered in a way that would be considered safe by men supposed to be competent judges; could the explosion then have occurred in the way it did occur?

A. I will say it could.

By Mine Inspector Paul: Q. Have you stated in your testimony where the explosion could have possibly originated?

A. I think it probably could have originated at second right, first south, in the neighborhood of the second cross cut between rooms 21 and 22. I base my opinion on the great increase of temperature at that point.

Q. If the explosion had originated in No. 6 mine and had come over into No. 8 mine would you expect to find the same conditions on second north as you find there now with respect to evidence of high temperature?

A. No, sir.

By Mr. Alexander: Q. How long have you been engaged in the mining business?

A. About forty-seven years.

Q. Where was your first experience?

A. Across the water—in the extreme northern part of England.

Q. What experience have you had in this country and where?

A. I have had about forty-two years of it here.

Q. Where have you worked?

A. In Pennsylvania, Indiana, Ohio, West Virginia and Illinois.

Q. In what capacity, other than a miner, have you served?

A. I served as mine boss in this state thirty-nine years ago in the city of Wheeling for what was then known as the Central Glass House Company. I have had nearly forty years experience in this state.

Q. In what other capacity than mine boss?

A. Inspector of mines for the Fairmont Coal Company for about three and a half years.

Q. You say you were in No. 6 before the explosion. Were you ever in No. 8?

A. I was in there just when the development began. It was not working as a mine.

Q. The dust that is created in the under-cutting by a machine in a room—what becomes of the greater part of that dust? Is it carried away?

A. You mean what becomes of that dust put in suspension either in the rooms or heading? It naturally would go by the return currents into the returns and be delivered to the outside.

Q. Would any portion of it go into the intake?

A. None of it. It would be unnatural for it to do so, as it surely would go with the current and not against it, if light enough to float in the air.

Q. At the time of this explosion, December 6th, what would be the condition of the air in the return air course? Would it be as warm as that in the intake?

A. Much warmer and would contain more moisture.

Q. What would be the effect on the dust which is carried into the warm return air course from the various rooms and working places?

A. It would have a dampening effect on it, which would naturally make a great deal of it fall to the ground.

Q. In your opinion is there as much necessity of watering the return air course as there is the haulways and intake air course?

A. No, sir; I should not think there was.

Q. The dust that is gathered in the rooms, in suspension—that is, the dust which we understand to be explosive dust?

A. That is my opinion.

Q. That dust is carried into the return and not into the haulways?

A. That is the way I view it.

Q. How does the dust which is carried in on the haulways by the grinding of the coal on the cars and the tramping of the horses and men traveling the haul ways—how does the dust carried in that way compare with that created in the working places, especially when you take into consideration the fact that these cuttings are loaded into the cars before shooting?

A. The so-called dust on haulways could not be classed properly as coal dust. That contains everything—possibly as much stone matter as coal matter and in many places more. We even find larger quantities of dust in the neighborhood where falls or clay veins have been cut than any other part of the heading. The so-called dust found on the haulways is caused by the grinding up of stone and slate and even the ties themselves are pulverized and become dust in a measure, and the pavements are ground up by the horses and become dust, but not such dust as we call coal dust. Then it becomes a question in the mind of the inspector, is it dangerous dust? I would say that the dust found on haulways cannot be classed as dangerous as dust created on the working face and in suspension, and would not be as easily ignited as it does not contain the high per cent of inflammable matter.

Q. Then the coal dust—as we understood the mining law to mean—is largely carried into the return air course and by reason of the warmer condition of the return air course is rendered damp and less liable to explode?

A. Yes, sir; in my opinion.

Q. What portion of these mines have you visited since the explosion?

A. I believe all. If I have missed any it is because I have overlooked them. I think I have visited every foot.

Q. Did you find evidence of flame in every part of both mines?

A. Oh, no.

Q. Did you find these flame areas, as you term them, all together in one place or are they scattered?

A. They are scattered in wide areas.

Q. Did you find these evidences of flame in portions of the mine which you conceive were wet prior to the explosion?

A. No; not where it was wet. I have found it where it was damp prior to the explosion.

Q. Now, you say that you found evidence of a powder explosion in the second cross cut on second right off first south, between rooms 21 and 22?

A. Yes, sir.

Q. What was the condition of the ribs of this crosscut and of the roof at this point?

A. They were very heavily charred with thick coke. It is the only part in the mine where the flames seem to have lapped down to the floor. I found on the pavement partly charred coal.

Q. In the crosscut?

A. Yes, sir.

Q. Through the crosscut and into room 22—what were the conditions in that room?

A. The conditions in the room were similar to the crosscut but in room 22—which is going outward—there are greater evidences of charred coal than in the crosscut.

Q. How far in did you find evidence of that flame?

A. In as far as the neck of room 30.

Q. How far out on this same heading did you find evidence of flame?

A. Room 10; or rather room 9; and I want it understood that that room was the last. Between 8 and 9 the pillars had been drawn and there was nothing for it to feed on but stone.

Q. What evidence of force did you find in these rooms and headings?

A. Down on the heading—I think about 27 room—there was a trip of motor and cars which had been buckled together.

Q. In this crosscut—rooms 21 and 22—and throughout this fire section of this heading, what was the result of this burning or heating process on the coal? What resulted from that process.

A. There could only be one result and that would be to release the gasses.

Q. In your experience around coal mines, in your opinion would the gasses released in that process be explosive under proper conditions?

A. Most assuredly.

Q. In going through the mine did you observe those piles of debris, charred coal, small pieces of coal and some dust around in various places on the walls?

A. Yes, sir.

Q. Could you say from an examination of those piles of debris there whether that was created and put there by the explosion, or whether it was there prior to the explosion?

A. They were surely deposited there during the process of the explosion.

Q. Is there any way to tell—by the condition of that mine now—whether there was any particular dust in the mine prior to the explosion?

A. None that I know of.

Q. Assuming that there was a powder explosion between rooms 21 and 22, would that explosion have created or thrown into the air at that point coal dust, as we understand it?

A. Yes, sir; I think so.

Q. Would the explosion itself have thrown coal dust into the air from the pavement?

A. It would have taken up what was there.

Q. And if that is so, then that explosion would have ignited whatever was thrown up into the air?

A. Yes, sir.

Q. And that would have been converted into gasses?

A. Yes, sir.

Q. In your examination of these mines since the explosion did you find any gas or fire damp?

A. Possibly in the three places in very small quantities.

Q. The ventilation had not been fully restored at the time you made these discoveries?

A. No, sir; not fully.

Q. As between dust and fire damp and powder, which of these three in your opinion was most important in starting the explosion that was had in this mine?

A. I would say that the most probable cause would be the ignition of the powder.

Q. That, you mean, is what you would consider the most probable cause?

A. Yes, sir; I would so consider it.

Q. Assuming that that explosion started at that point from the powder explosion, what, in your opinion, played the most important part in promulgating that explosion in No. 8 and No 6 mines?

A. If we consider the area that had been burned over—that is the coal that has been charred—we must imagine there was an immense volume of explosive

mixture created and the great temperature would naturally put it in motion. These gasses, after having been released from that district, met with conditions that were favorable, and with very high temperature would create subsequent explosions which, in turn, would be propagating others.

Q. Your idea is that this explosion of the powder in the crosscut fired whatever dust was thrown up, converted it into gas, fired the coal on the ribs and roof and generated gasses which are explosive under proper conditions?

A. Yes, sir; I would think so.

Q. And these spread throughout the mines and whenever the gasses met the proper conditions they generated more gasses and that continued on throughout the mines?

A. That is my opinion.

Q. Did you find any evidences of flame at the foot of No. 6 slope?

A. No, sir; we did not find any evidences of flame at the bottom of the slope. I have searched it over inch by inch.

Q. State whether or not your examination of the mine for the purpose you have stated was a careful examination?

A. Most assuredly; very careful.

Q. And you found no evidences of flame at the bottom of No. 6 slope?

A. No, sir; not what I would call the bottom.

Q. How close to the bottom?

A. I will say not closer than fifty or sixty feet. I think it is in the second crosscut on what would be the loaded track, inside of D face. I am not sure whether it is the first or the second crosscut west of D face. There is a very slight evidence there.

Q. Did you find evidence of flame at any other point near the bottom of No. 6 slope?

A. Not within some hundreds of feet—and about fifteen feet from the face of this working place, (here pointing on the map) where it is marked "Additional New Air-course;" that would be some five hundred or six hundred feet from the bottom of the slope.

Q. From your examination of the mines in which direction did that explosion go—from G to S or S to G?

A. I would consider that it came from S to G.

Q. In your examination of No. 6 did the runaway trip, in your opinion, have anything to do with the explosion?

A. I couldn't connect it with it.

By Mine Inspector Paul: Q. At whose instance have you made this examination?

A. The Fairmont Coal Company's.

Q. What was the condition of the first and second rights off of B face with respect to evidence of flame area?

A. That is called the first left off of C.

Q. Well, first left off of C and first and second right off B?

A. There are indications of high temperature found and a great deal of evidence of what I term "blistered coal." Blisters raised on the coal and the formation of coke are two different processes.

Q. You make a distinction between charred coal and coke?

A. Yes, sir; I make a distinction in the regions where the gasses have just been started, which causes a blister to raise on the coal.

Q. That is what you term, also, a fire district?

A. Yes, sir; I would consider it a flame district; but the greater amount of heat and flame would be where the coke was formed, and the condition of the territory you name is more of coal blister than the formation of coke.

By District Inspector LaRue: Q. Where, in your opinion, was the greatest force manifested in the two mines?

A. That would be very hard to tell. I would simply say in all parts of the mine; that would be about the best answer I could give. For instance, I might take you to one part of the mine where a portion of a car had been torn to pieces and the parts deposited for some distance and you would say that a

great force had been exerted there. I could take you to another part where a car had been stripped of everything—bottom, top and trucks—and you would say that the greatest force had been exerted there. So it would be very hard for me to say where the greatest force had been exerted.

Q. How do you account for the destruction of flame in No. 6 mine?

A. I don't know anything about that. I am not going to try to figure on that.

Q. That is a very important thing to figure on.

A. I don't consider it would be important, at all, whether the flame reached the pit mouth or not. I would not consider it necessary for the destruction to have the flame rushing out of the pit mouth.

Next came H. V. HESSE, who being first duly sworn, testified as follows:

### Testimony of H. V. Hesse.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Frostburg, Maryland.

Q. What is your position?

A. General superintendent of the Consolidated Coal Company.

Q. Is that an allied corporation to the Fairmont Coal Company?

A. Yes, sir.

Q. What was your occupation prior to assuming that position?

A. Chief engineer of the Fairmont Coal Company.

Q. How long has it been since you left the services of the Fairmont Coal Company?

A. About a year and a half.

Q. During your services as chief engineer of the Fairmont Coal Company, did you have occasion to visit Monongah mines No. 6 and No. 8?

A. Yes, sir.

Q. When were you last in these mines prior to December 6th—the date of the explosion?

A. About two years ago.

Q. Have you been in the mines since the explosion?

A. Yes, sir.

Q. Have you gone over each of the mines?

A. Yes, sir.

Q. Did you assist in the rescue work?

A. No, sir.

Q. Did you make an examination to enable you to determine, in your judgment, the cause of the explosion?

A. No, sir.

Q. Did you endeavor to make such an examination?

A. Yes, sir.

Q. Why were you unable to get sufficient data to enable you to arrive at any conclusion?

A. I could not determine the cause of the explosion because I could not find the initial point of the explosion.

Q. Did you find places where the initial point might have been?

A. Yes, sir; one point.

Q. Where was it, please.

A. In the cross cut between rooms 21 and 22 on second right off of No. 1 south face.

Q. What was that evidence of the origin of the explosion?

A. Evidence of a powder explosion there—very strong evidence.

Q. Powder that had been confined or loose powder?

A. Probably open powder—an open can. I was unable to determine how it was exploded.

Q. You found powder flasks or cans that gave evidence of having powder exploded in them?

A. I did.

Q. Do you know if any test has been made to determine whether the powder had exploded?

A. I understand there has.

Q. Are you familiar with that test?

A. No, sir.

Q. Do you think the powder cans or flasks exploding would have been sufficient to do the damage that was done in the two mines, without the aid of other elements?

A. No, sir.

Q. What other elements probably took part?

A. Coal dust and gas distilled from the ribs of the cross cuts and rooms adjacent.

Q. Could any dust that might have been on the ribs, or in suspension in the air, have taken part in the explosion?

A. It could.

Q. What was the evidence of heat on the ribs of the coal?

A. The formation of great quantities of coke.

Q. Was that coke formed from the solid coal?

A. The greater part of it, I think.

Q. Did you find any coke in there that appeared to be formed from coal dust?

A. No, I couldn't distinguish; but the coke was solid on the ribs and was probably the coke made on the solid ribs.

Q. Did you find any coke on the pavements of the rooms?

A. Yes, sir.

Q. What is the character of the pavement of the mine?

A. Fire clay.

Q. What was the probable origin of the coke found on the pavement?

A. It dropped from where it was created on the ribs, or roof, or had been carried there by the force from the adjacent chambers.

Q. Do you think it is a safe practice to permit black powder to be taken into coal mines?

A. It has always been considered so.

Q. If the powder you have spoken of having exploded had not been in the mine, do you think there was a probability of this explosion having occurred?

A. I do not know.

Q. Do I understand you to say that the explosion of the powder created sufficient heat to distill the gasses from the solid coal, and that gas became inflamed?

A. I do not say the gas became inflamed. I said that the powder explosion created sufficient high temperature to distill the gasses.

Q. From what sources would those gasses be distilled?—from the solid coal, the coal on the pavement, or the dust in suspension in the air?

A. In my judgment most of it was distilled off of the solid ribs.

By District Inspector LaRue: Q. When did you make this examination?

A. On Wednesday following the explosion.

By Mr. Alexander: Q. How complete an investigation did you make of the two mines?

A. To the best of my knowledge and belief I was in every working place in these mines, together with as many abandoned working places as were accessible.

Q. Did you go to any points more than once?

A. Yes, sir.

Q. What points did you visit more than once?

A. The main headings of No. 8, the third left off of No. 2 north face, second right heading off of No. 1 south, and foot of No. 6 slope. Those are the ones I recollect now.

Q. Did you find evidences of flame throughout every portion of both mines?

A. No, sir.

Q. Were those flame areas together in one place or were they scattered through various portions of both mines?



A. They were scattered.

Q. Did you find any flame areas connected—one flame area connected with another?

A. I can't recollect any.

Q. These flame areas seem to be isolated?

A. Yes, sir; widely separated in many instances; several thousand feet apart in some instances.

Q. It is your opinion that enough gas could have been generated from that exploded powder igniting the dust in the air and coal on the ribs and roof of the cross-cut in that heading, which when united with the proper proportions of air would have created the intense flame area?

A. Yes, sir.

Q. And that flame area to have gone on and on throughout the mines?

A. Yes, sir; that is my opinion.

Q. From the remains of the powder cans could you tell what size they were?

A. They had the appearance of being the ordinary five-pound cans; two of them.

Q. Did you find any evidence of flame at the foot of No. 6 slope?

A. No, sir.

Q. Did you see that trip of cars that was supposed to have been wrecked?

A. I did.

Q. From your investigation of that, in your opinion did that runaway trip have any thing to do with the explosion?

A. I do not think it had the slightest connection, in my judgment.

Q. In your opinion that explosion originated in No. 8 and went through to No. 6?

A. Yes, sir.

Q. Did you find any evidence of flame beyond No. 6 slope—towards the mouth of No. 6?

A. No, sir.

By District Inspector LaRue: Q. What did you see at the foot of the slope in the way of a wreck? How many cars?

A. I do not know; I didn't count them.

Q. How many tracks were closed up?

A. Only one.

By Mine Inspector Paul: Q. Did you find much evidence of heat on the entries?

A. I found some evidence of heat but no evidence of flame.

Q. Where were these flame areas, principally—in the rooms?

A. Yes, sir; in the rooms. I think there was one heading—fourth left—but outside of that there was no flame on the headings.

By a Juror: Q. Did you find any flame on the return air ways?

A. I cannot recollect any.

By District Inspector LaRue: Q. It is your opinion that the force has dispelled the evidence of flame in the entries?

A. I think the evidence of flame was not there because the air could not properly mix with the gas. It takes a mixture of air and gas to make an explosion.

Q. Did you find on any of the posts in any of these rooms evidence of coke?

A. Yes, sir.

Q. How do you account for that?

A. I would consider that it had been carried with the current and deposited there.

Q. Did you find evidence of particles of coke cinders scattered through the entire mine, from one flame area to another?

A. Yes, sir.

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Next came FRANK HAAS, who being first duly sworn, testified as follows:

## Testimony of Frank Haas.

Examination by Mine Inspector Paul:

Q. What is your connection with the Fairmont Coal Company?

A. Assistant general manager.

Q. For how long have you held that position?

A. About two years.

Q. What has been your experience in mining and managing coal mines before that time?

A. I have been with the Fairmont Coal Company since they started, in July 1901. Previous to that I was with the Virginia Iron Coal and Coke Company and the Southern Coal and Transportation Company.

Q. In what capacity have you worked?

A. As engineer, acting superintendent, chemist, chief of the testing department and present position.

Q. You were not present when this explosion occurred?

A. Not at Monongah.

Q. How soon after the explosion did you arrive there?

A. Probably thirty minutes.

Q. When did you begin your examination inside the mines?

A. The following Thursday morning.

Q. In company with whom?

A. The investigation was made by different parties. I think Mr. Bailey, Mr. Hesse, Mr. Scott, Dr. Payne and myself were together.

Q. Did you explore all of the two mines?

A. I did not.

Q. What parts did you investigate?

A. The main headings in No. 6, and part of G face, F face, H face, on the right. In Monongah No. 8, main heading, on third north, second south, the lefts on the second north, and the rights and lefts on the first south.

Q. How carefully was that examination made?

A. The first part of it we went over rather hurriedly, but we came back to it and the greater part of it was very carefully done.

Q. In your examination did you ascertain any places or conditions that led you to believe where this explosion might have started, or did start?

A. I am not ready to express a final opinion on the matter, but the second right entry off of first south No. 8 appears to be the district where the explosion may have originated.

Q. At the place you have mentioned as being a probable starting point, what was the initial cause of the explosion at that point?

A. I couldn't trace it back to the beginning; there is not sufficient evidence. There was a powder explosion.

Q. What evidence did you find of there being a powder explosion?

A. Two empty cans that had evidently had the top and bottom blown off and had a deposit inside of them.

Q. Are you able to say whether the explosion of these cans of powder might not have occurred after the explosion in the mine?

A. Not from the amount of heat exhibited at that point. I would think the powder would have exploded then if it had not done so before.

Q. Did you find any evidence that would lead you to believe the cans which you found exploded there might not have exploded prior to the mine explosion?

A. I found no evidence that would make me believe that they exploded before that time. I would probably have heard of it if there had been a powder explosion in that mine previous to the explosion.

Q. Would it have been reported if it had been shortly prior to the explosion?

A. It must have occurred that morning at the time of the explosion.

Q. Are you willing to state what connection, in your opinion, the explosion of the powder cans had with the general mine explosion there?

A. If you start with a powder explosion, it would create quite a commotion in that neighborhood, which occurred in a contracted place, at the crosscut; it lifted dust with it and burned the small coal and dust creating heat, not only

from the powder, but from the coal and dust itself, which in turn ignited the dust and solid coal on the ribs of the crosscut. There is no doubt about that. It continued to burn until the air in the immediate neighborhood was all consumed when the flame died out, but the heat and temperature were there, and these two forces exerted themselves in distilling gasses, but not having sufficient air, were unconsumed when they left that point. In that heading occurred a battle for mastery between the choke damp and the air, and, finally, there not being enough air in that heading to consume all of the gasses, those unconsumed gasses escaped to other parts of the mine. We made an estimate of how much coke there was there, and then calculated back to the corresponding amount of coal. Of course the figures are rough, but we estimated that 52 tons of coal had given off their gasses. If that amount of coal had given off their gasses one quarter of a million cubic feet of coal gas was liberated. We have the volume of the air in that heading and there was not more than one-third enough air there to consume the gasses; consequently the flame was put out in that particular heading by the fire damp or carbon dioxide. The gasses rushed out under very high pressure and separated in all directions throughout the mine. As it went into the heading it pushed the fresh air ahead of it, until it got into the rooms, or headings that had rooms, and not being able to push all the air straight ahead of it on account of the crosscuts, it had opportunity there to mix with fresh air, and as a result we have the local explosions that occurred throughout the mines. I believe the explosions became weakened because of the choke damp, and nitrogen of the air not being explosive, gradually crept up in per centage in each territory where we have a flame district and explosions occurred; thus creating more gasses. For the explosion of this gas we must have something to ignite it. There was constantly present in these traveling gasses hot coke cinders, originally incandescent but famous in their travels, because they were in an atmosphere which would not support combustion, but capable of re-lighting when they reached fresh air or an explosive mixture. We have flame areas in which no men had been working and even abandoned territory and, in my opinion, this is the only possible solution. We know the atmosphere in the original heading was of a very high temperature and we know that the coke was carried out of the heading and through the headings where the local explosions occurred.

Q. And accounted for by what?

A. By incandescent carbon carried with the gasses.

Q. What evidence made you conclude that these explosions weakened as they traveled?

A. I have no positive evidence. In the local explosions that occurred in the first left heading of No. 6 we did not have a very high temperature, but it showed a weakening of the gasses and the increasing of the percentage of choke damp and nitrogen.

Q. Was there any fire discovered after the explosion in the locality which you have mentioned that might be the starting point of this explosion?

A. There was in that heading.

Q. Do you remember where that was?

A. I think it was the left rib of room 10.

Q. About how long after the explosion?

A. About ten days after the explosion it was reported.

An adjournment was here had until tomorrow morning at 9 o'clock.

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#### JANUARY 11TH—MORNING SESSION.

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The examination of FRANK HAAS was resumed by Mr. Paul and the witness testified as follows:

Q. In No. 8 mine what percentage of the area of the development showed indications of the flame area?

A. I would have to depend on my notes. If I may refer to them I can give it exactly. It would be about three or four per cent. The exact percentage can be given as we interpret our observations.

Q. About what amount of gas was given off in the distillation of the coal that was found?

A. The complete distillation would give five cubic feet per pound of coal.

Q. Have you conducted any examination of the coke or charred dust found in the mine?

A. We have taken numerous samples of different kinds to indicate how much gas had been driven off at different times. That was done for the purpose of coming to some agreement as to what were called the high temperature points.

Q. What were your findings?

A. I think some of the coal showed no gas had been driven off; some that had lost one-half; some were not tested, because, in our opinion, they were silvery coke and had given off all their gasses. The result varied from no gas given off to all the gas given off.

Q. In No. 6 what part of that mine gave evidence of the flame area?

A. There was evidence of flame in the second and third right of F face.

Q. What per cent of the total area?

A. About five per cent.

Q. Will you indicate and explain the map to the jury showing what indicate the flame areas?

A. This is No. 8 mine. This is the heading designated as the second right off first South. You see tinted in red a certain area of the rooms which have been worked out, or partly worked out. You find two colors on the map—red and yellow. The red indicates where we found the most intense temperature. This is the only place on the two maps we find this tinting of red. The yellow represents where we found indications of high temperature, in this heading, which is the first right. In third right we find a small area and in second left a small area leading through one of the toad holes. On first right off second South there is only one small area in one room practically filled with the high temperature zone. In the third north heading we found two of the four entries, the ends of which showed high temperature. In the second north face heading we find, on the first left, in rooms 27 and 28, a small area showing high temperature. In third left in second north heading, we find a room which we designate as high temperature. In fourth left we find several isolated areas, not connected, showing high temperature. In the fourth right we find two areas which are all that we consider the high temperature area of No. 8. Now take No. 6: This is the connecting heading which on the other map, of No. 8, we call the second north. This connects into No. 6 mine, which in No. 6 is known as the F face heading. In the F face heading we found several isolated areas of high temperature in the fourth right of F face. In the second right we find an area. On the left heading which connects with B face we found three areas. In D face heading, which we call the first right off D face, we find a considerable area, and in second right we find some. At the foot of E face heading, which is to the dip at the extreme end, we find a small area. In D face we find a connecting area from the first right to the second right. In C face heading there is no flame area. In B face we find in the first three headings indications of flame. In the cross cut at the foot of the slope we find a small area of high temperature.

Q. How long had it been since C and D headings had been worked?

A. I have no knowledge, personally, but I would say five or six years.

Q. Is it your belief that if the entries and working places throughout both mines had the bottoms made wet and the ribs of the coal made wet by the application of water that the two exploded powder cans would have forced the explosion to go out through both mines?

A. To some extent; perhaps not so far as they did.

Q. Would it be considered a safety precaution to spray the ribs and pavement of the rooms in mines such as these were, with a view of preventing the spreading of an explosion which may be due to the accidental discharge of powder?

A. To a certain extent.

Q. Would it be considered a safety precaution?

A. Do you mean a practical safety precaution?

Q. No; although it may be impracticable, would it be a safety precaution?

A. Yes.

Q. In your judgment did the force and flame in traveling through the mine entry carry its incandescent carbon so as to ignite these mixtures of the explosives which may have been made by reason of the force and the generation of gasses?

A. I would have to explain that. If they carried particles of coke they would become incandescent. They had enough heat in them to become incandescent when they hit the air. Traveling in an atmosphere of after damp it did not allow them to be incandescent; yet they carry sufficient temperature and heat to become incandescent as soon as they hit the air.

Q. You think the force and gasses clamoring through the mine picked up dust from the pavement and ribs and caused it to become inflamed and made incandescent?

A. If the conditions were favorable; yes.

Q. Then if the evidence of heat found in the sixth left off E face in No. 6--if there had been charred coke or dust found there--would have been carried all the way from first left of No. 8 or made at some intermediate point?

A. Most of the coke we found in the sixth left of E face had been made in that heading.

Q. From the dust put in suspension and picked up there or in some other part of the mine?

A. Dust will not explain it all; that is only part of it.

Q. Then the charred coal found on the heading, sixth left of E face, according to your explanation, may have been caused by the distillation of the gasses being ignited and heating the dust up to a point where it could have been charred?

A. If there was a local explosion there the dust would be charred.

Q. In the absence of any dust in a mine--considering that the mine had been thoroughly cleaned up and watered--do you consider that the making of dust by the mining and cutting and shooting of coal, and the handling of it, would be a source of danger in case of the accidental discharge of powder in the mine?

A. You assume that there is no dust in the heading?

Q. I assume that the mine has been thoroughly cleaned and made wet. Then the mine is operated and the coal is shot and transported. Will that operation have a tendency to make some dust?

A. I do not consider the mine that you describe as dangerous.

Q. Had you made any test--prior to the explosion--of the humidity of the air?

A. No, sir.

Q. Have you made any since?

A. No, sir.

Q. Had you made any test prior to the explosion of the amount of dust that may be carried in the air?

A. No, sir.

Q. Have you made any since?

A. Yes, sir.

Q. Are you in a position to state what amount of dust may be carried to a cubic foot of air?

A. I would explain that that would vary, depending on the location and the time of taking the sample. The sample was not taken under my personal direction. I have been told that it was taken about five feet above the pavement, immediately behind the mining machine, when the machine was in operation. The result showed that there were 1.5 grains per cubic foot suspended in the air at that time.

Q. You say "behind the machine." You mean the point away from the cutting bits?

A. I don't know, but I imagine from his description it was five or ten feet behind the machine. Not exactly at that point or even over the machine. The object was to avoid the velocity that any particles might have from the machine itself.

Q. Do you know of any similar tests having been made of the atmosphere of a room while the machine cuttings were being loaded?

A. No, sir.

Q. Which of the two processes would probably put in suspension the greater quantity of dust—the cutting or the putting of the coal in the car?

A. The machine cutting, in my opinion.

Q. You made no test to determine?

A. No, sir.

By Mr. Alexander: Q. How much experience have you had in chemistry?

A. I have been chief chemist for the Buhl Steel works, for the Sharon Iron works, for the Virginia Iron, Coal and Coke Company, the Blue Mountain Iron and Steel Company and the Fairmont Coal Company.

Q. During what term of years?

A. Eleven years.

Q. We have been talking about coal dust: Will any amount of that dust in the atmosphere be explosive?

A. No, sir.

Q. What is necessary to constitute an explosive mixture of coal dust and air?

A. An equal volume of air must surround each particle of dust, each particle being the same size. In other words, in each volume of air there must be a certain weight of coal.

Q. Give us those weights and volumes.

A. One pound of coal would require 125 cubic feet of air for perfect combustion.

Q. If you had one half a pound of coal dust in suspension in that many cubic feet of air, would that be an explosive mixture?

A. Uniformly distributed?

Q. Yes.

A. I do not think the flame would propagate from one to the other.

Q. In order to have an explosive mixture you must have one pound of this coal dust mixed through a volume of 125 cubic feet of air?

A. Yes; uniformly distributed.

Q. What do you mean by "uniformly distributed?"

A. All of the particles would be equally distant apart.

Q. Give us an illustration?

A. It is very easy to make a uniform mixture in case of liquids. For instance you pour milk into coffee and you have a uniform mixture. You can take out any part of that cupful and you will have the proportionate part of the milk and coffee corresponding to the original portion. In case of gasses the same is true. In case of solids it is very difficult.

Q. This is a mixture of gasses and solids.

A. Which is still more difficult.

Q. You go into an average coal mine and find dust. Is whatever dust there is there uniformly mixed in the manner in which you speak, throughout any given heading or room?

A. I never saw a condition of that kind.

Q. If that condition didn't exist in a mixture in the proportion of one pound of coal dust to 125 cubic feet of air, could there be an explosion? Would it be an explosive mixture?

A. There are certain limits to that 125 cubic feet. That would be the maximum. What the minimum is I don't know, but I think the range is very small. Getting outside of that range an explosion could not occur.

Q. What is the minimum?

A. So little is known of coal dust explosions, and there is some question as to

whether it is a rapid combustion or not, that no one has been able to determine what the limits are.

Q. Do you mean to say that one-fourth of a pound of this coal dust mixed with 125 cubic feet of air would be explosive?

A. I don't think so.

Q. What amount, then, would be explosive—one-half pound or three-fourths of a pound?

A. The only opinion I could give would be to assume the same proportion as gas. The range there is perhaps 10 per cent; in other words, 5 per cent from the most explosive.

Q. Is it impossible to operate a coal mine without producing some dust?

A. Yes, sir.

Q. But the creation of a small amount of dust even though it be thoroughly mixed with air would not be an explosive?

A. No, sir.

Q. Assume that you have in this room coal dust mixed with the atmosphere, and assume that at this end of the court room you had a mixture in the proportions that would be explosive. Assume that you have in the rear end of the room a light mixture of coal dust with the air that would be explosive. Assume that between these two mixtures there would be a space in which there was no coal dust. Would the ignition of the coal dust and air in the front part of the room ignite the dust and air in the other part of the room?

A. If it were possible to ignite the dust in one part of the room it would have no effect on the other.

Q. On this map you refer to, you call the area colored "yellow" and including the one colored "red," on the No. 8 map, the high temperature areas. What do you mean by that?

A. I mean that at one time the gasses of air and material in that part were at a high temperature.

Q. What caused the high temperature?

A. The combustion of some material—either gasses or solids.

Q. You mean that these areas colored red and yellow are flame areas?

A. Yes.

Q. Referring on No. 8 map to the area colored red, how many cubic feet of gas in your opinion were generated by the explosion of the gun powder, assuming that it was exploded?

A. You mean combustible gasses?

Q. Yes.

A. One-fourth of a million cubic feet.

Q. What gasses were generated or distilled in that process?

A. It is difficult to answer that for the distillation of the coal depends on the temperature, as to the character of the production. I would say there was methane, which is C.H.<sub>4</sub>. Methane is the same gas as the miners know as firedamp. Then hydrogen, carbon monoxide, acetylene and others of minor importance, but belonging to the class of illuminants.

Q. Methane, carbon monoxide and acetylene are extremely explosive?

A. All I have named are explosive under conditions.

Q. Assuming, Mr. Haas, that you had a powder explosion in the second cross cut between rooms 21 and 22 in the second right off of the first south, and that these gasses were generated: explain to the jury how that process—the generation of the distillation of gasses—would spread in other parts of the mine?

A. The measure of the force in that heading is not measured by the quantity of gasses, whether firedamp or manufactured gas, nor coal dust or coal, but is measured by the amount of air in the heading. The combustible material was in excess; so in making the calculations we have to take that ingredient of the combustible mixture which is the least. In this heading are approximately 883,000 cubic feet of air. With complete combustion you could only consume one-third of the gasses we know were generated. In the combustion of either gas or coal a temperature is created. It is possible under certain assumed conditions to determine the pressure that is exerted. There are a good many things against the

high temperature. Radiation acted rapidly, and we know that considerable heat was left in the coal and the ribs from the reports we have; so very much of the theoretical pressure was lost. I would say that the maximum would be probably fifty pounds of pressure to the square inch.

Q. Assuming that the 250,000 cubic feet of gas was generated in the process of which you speak, and one-third of it was consumed, where did the rest of it go?—out of the heading?

A. I will explain the pressure necessary for the transfer of the gasses. With such pressure behind it, which is terrific, to force the gas out, the ventilating system having been destroyed at the first instant of the explosion had no effect on the force or direction of the gas. The pressure was divided in the second North, and as it came on it was divided again. At this point it was divided many times—fifteen or twenty times—yet it had sufficient force to carry itself throughout the mines even though there had been no other explosion. In coming out here we had two-thirds of the gasses unconsumed. Experience shows us that the fire damp is mixed through the air. This gas is not perhaps as strong as pure marsh gas. I would say from the manner in which it is created and manufactured that it would probably have a lower ignition point. It would not require as much temperature to ignite it. In coming through the headings, here, it could not mix with the air; it simply divided here—no opening to mix it. As it went into the side heading, part of the current went straight on and part went through the cross cuts and eventually found dead ends somewhere to make an explosive mixture. The air was there and the gas was there and we know it did mix, but whether it was an explosive mixture it would be difficult to say. Having this explosion, this in turn generated more gas.

Q. Assuming that to be correct what caused the flame area at the point of No. 1 right off first South?

A. We have no way of knowing how much gas got in there, or whether all the flame was caused by the gas. I don't believe it did. When the gas exploded it created a temperature. If there was air left in the heading after the explosion it would burn the coal or dust on the ribs—everything that was combustible—and would continue to burn until it consumed all the air. This generates heat in the process and continues distilling gas, and continues in this manner from place to place.

Q. You mean from the mouth of the second right, up to the point you indicate in the first right, there was flame all the way?

A. No flame.

Q. Well, what started the flame?

A. We have coke splashings on all the headings. This means small particles of coke that had evidently been hot at some time. It must have been at the time of the explosion because it was never found at any other time. These hot particles of coke originated here but the first or second explosion that ignited from coke originating in the second right heading. They could not burn up in their travels through the headings because they were enveloped in a non-combustible gas. But they had sufficient heat so that, coming in contact with the air, they would burst into flame.

Q. The only means that the gas had of coming out of the second right was out of the mouth of second right off the first South?

A. Yes, sir.

Q. Assume that you had a door over the heading at that point: What would have been the pressure per square inch on that door from the gas generated in there and not burned, in seeking to escape?

A. It would have to be approximated from a calculation. It would not exceed fifty pounds to the square inch; or something near that.

Q. What would that be to the square foot?

A. One hundred forty-four times that—7200 pounds.

Q. What is the pressure, for ventilating purposes, in this heading per square foot?

A. I would say ten pounds.

Q. Would that pressure after leaving the point at the mouth of second right become greater or decrease from that point?



A. It would not become greater unless it had something to reinforce it.

Q. Did it have anything to increase the pressure?

A. It did, but it was not sufficient to bring it to the original point.

Q. So at that point the pressure was highest of any place in the mine, other than the immediate point of creation?

A. Yes, sir.

Q. Was that force sufficient to carry the gas throughout the mine without the same having been reinforced?

A. Yes, sir.

Q. Would it have been so violent?

A. No, sir.

Q. Explain the process by which these gasses you speak of in the second right were distilled?

A. I believe it took considerable force or temperature and some heat to start the conditions we have here. We have to account for a starting point having those properties. We know from the evidence that there was a powder explosion in the second cross cut, between room No. 21 and 22. Probably there was not very much powder; we found two five-pound cans. They may have been full or partly full. There was some powder in each can for they both exploded. It exploded in a contracted place in the cross cut. It picked up the loose coal within its range—not only dust but loose coal—which may have amounted to considerable weight. It burned that coal instantly, creating more heat than the original powder, which in turn set fire to the ribs in that vicinity, carrying its force into the following rooms and simply increasing in intensity and quantity until it was all consumed in those two rooms. In that process it generated so much gas and temperature that the pressure forced it to other rooms where there was fresh air, and so the process continued until it got to this last room. But in this combustion and formation of gas it created after damp and this was going on faster than the gasses themselves until it put the flame out. This gas was made in pockets. We cannot assume that it was uniformly mixed for it was not. There was not sufficient agitation to thoroughly mix it. This gas or after damp came out in pockets. We cannot imagine a uniform mixture in that space of time. It was the after damp that put the flame out. We know there was after damp in there—from the evidence of the rescue men—and we know there was heat in there, not only from the evidence we found but from the fact that a fire broke out in the room when they brought in some fresh air, which proved that the room was full of after damp, and there was sufficient heat and temperature to break out in a new fire a few days after.

Q. Speaking of this flame area in the first right: You say they were in dead ends. What do you mean by "dead ends?"

A. No means to escape.

Q. So that these gasses, in going to these dead end rooms, the air could not get to them and they had to mix?

A. Yes; they pushed the cushion of air before them and finally mixed.

Q. Did you find any flame area in the headings?

A. Not in the main headings. Occasionally in a dead end heading like this one we find a lapping of flame from one room neck to the other.

Q. Why did you not find the flame area in the headings except in the dead end headings?

A. There was no opportunity for the gas to mix with the fresh air. The fresh air was driven out ahead of the gas.

Q. In your opinion would it have been possible for any of these secondary or after explosions to have been originated from an open light?

A. It was possible but very improbable.

Q. Why is it improbable?

A. There is an extreme pressure here which made a great velocity.

Q. Did you find any flame area in any portion of the mine where no one had been working and no one was working that day?

A. We found a flame area where no man was working and where no man was found.

Q. In those places the flame could not have started from an open lamp?

A. There must have been some other cause for the ignition.

Q. Is it a rule in these flame areas that they occur where there is a dead end heading?

A. They do not occur in all dead ends. Where they do occur is where there must have been an eddy in the current rather than a direct current.

Q. They seem to have occurred where there was an opportunity of mixing between the air and gasses?

A. Yes, sir.

Q. Have you ever made any analyses of the coals of this region?

A. Yes, sir.

Q. Is it considered a gaseous coal?

A. Yes; I would say it is a gas coal—probably equal to the standard of the gas coal in the United States.

Q. Did you make an examination of the roof and pavement in that cross cut between rooms 21 and 22 in second right?

A. Yes, sir.

Q. What did you find?

A. The coal had been more or less coked.

Q. What did you find on the ribs and roof?

A. Practically the same conditions.

Q. Did you take any samples at that point as well as any other points so far as showing a difference in the burning process?

A. I did not take a complete set of samples. I simply did it for my own information. I cannot submit samples which will represent all the conditions we found.

Q. Look at these samples.

[Here witness is shown bottles containing samples of coal.]

A. These represent some of the conditions we found but not all.

Q. What does sample No. 3 represent?

A. That is partially coked roof coal, picked up in cross cut between 21 and 22. The same is two inches or four inches deep in this vicinity.

Q. This is the coal that was on the roof in this cross cut?

A. Yes, sir.

Q. And shows a partly coked process?

A. Yes, sir; that was taken off the solid.

Q. What does sample No. 4 represent?

A. Coke formed on ribs; found in vicinity of room 21 of second right, off first South.

Q. How nearly is that sample coked?

A. A considerable amount of gas has been driven off of that.

Q. What does sample No. 5 represent?

A. Coke carried in the hot current and deposited on the ribs while in a hot or molten condition.

Q. Where did you find this character of coal?

A. On the cross timbers.

Q. Coke carried in transit?

A. Yes, sir.

Q. Is that the kind of material that in your opinion would be carried along with the current of the gas until it reached a proper mixture of the gas and air, when it was rendered incandescent and set off?

A. Yes, sir.

Q. What does sample No. 6 show?

A. Dirt carried in the current and deposited on the ribs of many headings in both mines.

Q. Where do you find the deposits of this kind?

A. Along on the ribs.

Q. Do you find that in the flame area?

A. I should not expect to; it would be burned off.

Q. Do you find any flame area on any of the return air courses in either mine?

A. No, sir.

Q. Assuming that this explosion originated from the ignition of powder in the second right, what in your opinion was the probable means of propagating that explosion throughout the mines?

A. Coal gas.

Q. These gasses you mention—methane, acetylene, hydrogen and carbon monoxide?

A. Yes, sir.

Q. Assuming that this mine was free from what we call coal dust, and free of fire damp, and sufficient powder was in the second right to produce an explosion and generate gas to the extent shown, in your opinion would this explosion have occurred?

A. I should like to define what I mean by "dust," first. I mean such particles of coal that have been ground so fine that they are held in suspension in the air current of a low velocity. With that definition of dust I believe the loose coal lying around in that cross cut would contain a very small percentage of the dust I have defined. I believe the explosion could have been carried out of that heading and re-exploded in other parts of the mine without such dust.

Q. Do you believe it is probable that you could have in a mine, or in two mines, of the character of Monongah No. 6 and No. 8, such a quantity of dust and such a mixture of the atmosphere as to cause an explosion of the character we have here?

A. No, sir.

Q. Have you made an examination of the foot of No. 6 slope?

A. Not a personal examination.

Q. Have you had information from persons who made the examination and took notes regarding the condition?

A. Yes, sir.

Q. From that information and the evidence you have heard here do you believe it is possible that this explosion could have originated from the arching from those wires or a short circuit created by the runaway trip?

A. From the conditions as I know them I don't think the explosion was caused by a short circuit.

Q. What is your opinion?

A. There was a lack of force at that point—the original force—which is temperature. We had not sufficient temperature or indications of heat in that vicinity to explain any explosion whatever, hardly.

Q. Assuming that you had the runaway trip and the wreck at the bottom of the slope, and that that caused the short circuit, and the flame which ignited the dust at the foot of the slope—assuming all that do you believe that the explosion could have been caused by that condition?

A. If there had been a short circuit and some dust ignited? I don't believe it had anything to do with it.

Q. In the event that they had a short circuit and the ignition or firing of the dust at that time would it not have sought the nearest means of exit? Would it not have taken the course of least resistance and gone out B face to the man way back of the Catholic church and out the return air ways to the fan, and not have gone into the mine to any extent?

Q. It would not have gone in the mine to any great extent, but it would have gone out at the point of least resistance. It would have released itself and had a back pressure on the force going out of No. 6.

Q. So it could not spread through the two mines?

A. Not unless it was of sufficient magnitude.

Q. Do you know what, if any, steps the United States government has taken, compared with other countries, to show under what condition explosives are dangerous?

A. The United States government has not done much in that direction, to my knowledge—not to the extent that other countries have.

Q. In your opinion, would it be a wise and prudent thing for the United States government to conduct a station for the purpose of testing and conducting experiments for the purpose of ascertaining the conditions under which explosives used in mining operations would be dangerous?

A. Yes, I consider it essential to the success and safety of coal mining in the future.

Q. From your knowledge of those mines do you believe there was enough gas around in these mines—without the presence of some of these distilled gasses—to have propagated an explosion of the character of the one we have here—given a point of origin?

A. I don't believe dust alone would cause this explosion.

Q. Do you believe that dust alone—given the point of origin and the conditions which you usually find in coal mines of that character—would have propagated the explosion throughout the mine that this one was?

A. No, sir.

Q. Do you know the method of undercutting in mining coal with the machine?

A. Yes, sir.

Q. Have you made any test for the purpose of ascertaining what per cent of these undercuttings is dust, or what the character of these undercuttings is?

A. Yes, sir.

Q. From what mine were these cuttings taken?

A. New England.

Q. How does that mine compare, so far as the gas, coal and dust conditions are concerned, with No. 6 and No. 8?

A. The character of the coal in New England is practically the same as in No. 6 and No. 8.

Q. How many pounds of coal were taken in making this sample?

A. Fifty pounds.

Q. Did you make the test, and how?

A. We sent a man to take the sample where the machine was cutting and told him to bring fifty pounds of cuttings. The coal was put through screens of different sizes, starting with one-half-inch screen, then one-eighth-inch, then one-tenth inch, one-fortieth-inch, one-eightieth-inch and one-one hundredth inch, then the percentage was found of the total quantity of fifty pounds.

Q. What do you mean by a one hundred mesh screen?

A. One in which the strands are 1/100 of an inch apart; 100 strands to the inch.

Q. What would be the size of the particles that would go through that mesh screen?

A. The area would be less than 1/10,000 inch.

Q. What does the exhibit marked "original" represent?

A. The sample as taken, without screening.

Q. Before any test was made?

A. Just the cuttings.

Q. What does the second sample represent?

A. That represents the coal that went over the one-half-inch screen.

Q. What does the third sample represent?

A. This is the sample that went over the one-eighth inch and through the one-fourth inch screen.

Q. What does the next sample represent?

A. It went over the 1/4-inch and through the 1/2-inch. This next is a sample that went through the 1/18-inch mesh and over the 1/10-inch mesh.

Q. What does this one represent?

A. A sample that went through the 1/10-inch mesh and over the 1/20-inch mesh. This next one went through 1/20-inch and over the 1/40-inch mesh. This sample went through the 1/40-inch mesh and over the 1/60-inch mesh. The next sample went through the 1/60-inch and over the 1/80-inch mesh. This is the sample that went through the 1/80-inch mesh and over the 1/100-inch mesh. This is the sample that went through the 1/100-inch mesh.

Q. Does the sample that went through the 1/100-inch mesh constitute what in your opinion constitutes coal dust?

A. No, sir.

Q. What per cent of this whole fifty pounds is represented by that part going through the 1/2-inch mesh?

A. Twenty nine and eight-tenths per cent.

Q. Give the others?

A. The part that went through the  $\frac{1}{2}$ -inch screen and over the 1 4-inch is 18.1 per cent. Through 1 4-inch and over 1 8-inch, 21.1 per cent. Through the 1 8-inch and over the 1 10-inch mesh 6.5 per cent. Through 1 10-inch and over 1 20-inch mesh, 10 per cent. Through 1 20-inch and over 1 40-inch mesh 7 per cent. Through 1 40-inch and over 1 60-inch mesh 2.5 per cent. Through 1 60-inch and over 1 80-inch 1 per cent. Through 1 80-inch and over 1 100-inch mesh 1 per cent. Through 1 100-inch mesh 3 per cent.

Q. So that of the cuttings made by the machine in undercutting the coal, three per cent would be what is termed "coal dust?"

A. That is my opinion.

Q. You know the rule of the company in operating these mines—No. 6 and No. 8—was to load out these cuttings before firing a shot?

A. Yes, sir.

Q. Now what per cent in your opinion would be left after loading out?

A. In ordinary workings I suppose he would load out ninety per cent of the cuttings.

Q. So that the dust left would be ninety per cent of three per cent, which would be taken out?

A. He would probably take out about ninety per cent of the fine dust.

Q. So that the percentage of dust left in the mine would be very small?

A. Only a small proportion of the three per cent.

Q. Where is most of that dust carried?—by the intake air courses or by the return air courses?

A. Very little would be carried. What is carried would be by the returns.

Q. The air circulating through the rooms moves slowly—with no great velocity?

A. Comparatively.

Q. And that carried by the return air courses would be carried out?

A. Yes, sir.

Q. Or deposited by reason of the return air courses being damp?

A. Yes, sir.

Q. Did you use the same character of mining machine at New England that was used at No. 6 and No. 8?

A. I think there is a uniform custom.

Q. As I understand it, of the sample you have taken, only that coal dust which went through the 100-mesh screen would be held in suspension in the air?

A. Yes, sir.

Q. And that is only three per cent of the total undercutting?

A. The velocity has a great deal to do with what is termed "dust." There could be such a velocity in which dust cubes of one-inch dimension would be carried along; but with the velocity we have, I believe it is only such portions that will go through a 100-mesh screen that is suspended in the air.

Q. The velocity in the headings and airways is much greater than in the rooms?

A. Not in the room headings; the main headings as a rule have a greater velocity.

Q. The velocity of the air in the headings would tend to put in the air more dust than the velocity in the rooms?

A. Yes, sir.

Q. That is the reason you consider it necessary to water the headings?

A. Yes, sir.

Q. That is why you have not considered it necessary or practicable to water the rooms?

A. Yes, sir.

By District Inspector LaRue: Q. How much powder was in those cans that exploded?

A. I do not know.

Q. It could not have been over ten pounds?

A. Not over two cans.

Q. Did you see any signs of any other can?

A. No, sir.

Q. Or any evidence of any can that was not exploded?

A. I did not see it but there was a can that was not exploded, or that was reported unexploded.

By Mine Inspector Paul: Q. You speak of the combustion of one pound of coal to 125 cubic feet of air. On what is that based?—on the amount of them required to consume the volatile matter and fixed carbon?

A. No, sir; to completely burn the coal one pound of coal requires eleven pounds of air.

Q. For complete combustion?

A. Yes, sir.

Q. That would consume the volatile matter as well as the fixed carbon?

A. All the coal.

Q. Have you made any analysis of the charred dust found on the ribs with a view to determining the ash?

A. No, sir; not for that purpose.

By Prosecuting Attorney Lowe: Q. I understand that before the explosion you estimate that the pressure caused by the ventilation was ten or twelve pounds per foot?

A. Each inch of the water gauge is five pounds; yes, sir.

Q. After the explosion the force coming out of those rooms in which the force was created was something like 7200 pounds to the square foot?

A. I said it was hard to calculate that. It is only an approximation from a calculation of fifty pounds to the square inch, which I do not believe is just right.

Q. But that force you admit was not created all at the same time. It was a gradual collection?

A. Yes, sir.

Q. That being true, how do you account for the force staying in those rooms until it had gotten to the amount of 7200 pounds to the square foot before coming out? Why didn't the force come out of those rooms into the headings before it collected to the degree you indicate?

A. It did.

Q. That being true did it come out of those rooms with a sufficient force to carry it along to the different parts of the mine that you indicate? Was not the distribution of that force to the different parts of the mine, and the causing of this additional explosion which you explain—was it not necessary for this force to be behind that?

A. It did require a tremendous force, and, as I explained, the force would be increased but the pressure was gradual. It did not come out instantly but it came out rapidly.

Q. Was the collection of that force generated by the gasses driven off by heat in those rooms rapid enough to send the explosion to the different parts of the mine?

A. They did not all occur instantly but they were rapid enough.

Q. Would not the force necessary to carry this gas and the explosion to the different parts of the mine—might not that be more reasonably accounted for by the ignition of the gasses along the side of the room and the floor rather than having it generated back in those rooms?

A. It might be more easily accounted for but the evidence does not show it that way.

Q. What evidence?

A. The evidence of temperature in the rooms—the relative temperature.

Q. What amount of area do you calculate was burned over by the fire which you subsequently found there?

A. You mean a few days after?

Q. Yes.

A. My attention has only been called to two subsequent fires. One oc-

occurred in second right off first South and the other occurred in second right off E North.

Q. Did you discover any evidence to show you that the burning in the places marked "red" on the map all occurred at the time of the explosion, or may not some of it have been burned over after the explosion?

A. I believe not; there was not enough carbon dioxide to kill the flame.

Q. Would that be formed during the burning, also?

A. Yes, sir; that is what put it out.

Q. It had evidently taken some time to collect enough dioxide to put it out?

A. No, sir.

Q. A considerable area was burned over?

A. Gas travels very fast at a high temperature.

Q. But traveling as fast as you say it does?

A. I do not attempt to say how rapidly it traveled, but the explosions occurred in quick succession, for it was all over within a few instants, from the evidence.

By Mr. Alexander: Q. How rapidly does steam travel?

A. I would have to refer to the text books; perhaps 5000 feet.

Q. These gasses would travel equally as fast?

A. Yes, sir; I should think so.

Q. What would have been the result if it had been possible to have restored ventilation immediately after the explosion?

A. The whole mine would have been on fire.

Q. As a result of the tremendous temperature?

A. The heat still retained by the walls.

Q. Tell the jury the measurements you took to arrive at a calculation or estimation of the gasses generated in the second right?

A. Our engineers prepared the maps, as you see, and measured with more or less degree of accuracy, the length and width of rooms from which the coal has been removed. I have taken these maps and calculated the area covered by what you see in red, as the indications of flame were general at the top half of the room. I took one-half of the side walls and the top and by getting the opinion of quite a number of men we assumed that one-eighth of an inch of coal consumed produced the gasses over the area calculated.

Q. You have been speaking of the second cross cut; What is the depth of the coked, or partly coked coal on the pavement there?

A. Probably several inches.

Q. There are still particles hanging on the walls?

A. Yes, sir.

Q. That is true as to room No. 21?

A. Yes, sir.

Q. And room No. 22?

A. Yes, sir.

Q. And in the rooms extending either way?

A. Yes; more or less in all.

Q. Have you made any tests to ascertain whether the powder was, in fact, exploded in this cross cut?

A. Yes, sir.

Q. What tests?

A. We found a dinner pail in the immediate vicinity which we presume stood there then. If the explosion was a powder explosion some of the splashings might have hit this dinner pail; and so we scraped the sides of this dinner pail and made a qualitative analysis of what we found, and we found a similar product that you find from a gun powder explosion.

Q. Did the pail still have the man's dinner in it?

A. Yes, sir.

Q. You know about where the trip was that was standing on the tippie when it ran away and was wrecked at the foot of No. 6 slope. You know the grade of that slope?

A. Yes, sir.

Q. How long would it take that trip to run from where it started to where it stopped?

A. It would take more than twenty-five seconds. How much more would depend on the friction of the wheels and the resistance of the air.

Q. It would take at least twenty-five seconds?

A. It would take more; yes, sir.

By Mine Inspector Paul: Q. What elements did you find in the analysis of that dinner pail?

A. Soda.

Q. Is that a constituent of powder?

A. Yes; of the powder we use in the mines.

Q. What other constituents is sometimes used to manufacture powder, other than soda?

A. Potash.

Q. Potassium nitrate?

A. Yes, sir.

Q. Do you know from any tests you made as to the character of gasses those powders give off in being exploded?

A. No, sir.

Q. Did you make any test of the ribs or roof of the mine near where the powder exploded?

A. No, sir.

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The witness, DAVID VICTOR, being recalled for further examination, testified as follows:

### David Victor Recalled.

Examination by Mine Inspector Paul:

Q. Will you explain the method adopted in these mines for ventilating the parts which have been robbed—the pillar workings?

A. I will try. In No 8 the portions as shown on the map here have been robbed out. The first right heading of the second north has a small regulator to let enough air through to keep the circulation there. It went in the return air course here below the fan. These robbed from this side had the intake coming in all around as the pillars were drawn. The air came right through there. In this heading here there is no circulation except around the edges of the gob. Right here there is a curtain across the headings to throw the air through the cross cuts. As they moved on down the curtain would be moved down. Down further in the heading was another curtain to circulate the air again. Some headings have one curtain and some have two. These headings let the air leak through over the gob. The air went through here and ventilated this as it went around. Here is an arrow showing the position of the current.

Q. Was that the system adopted on these robbed-out portions?

A. Yes, sir.

Q. Do you consider it advisable when a mine has been robbed to hermetically seal it?

A. We have done so; I would not think so, though; it should be ventilated. We endeavor to put the return air through a robbed out working.

Q. Is there any particular danger in sealing it?

A. Some danger. While I have never seen a case where I knew there was any danger, still I consider that it would be dangerous.

Q. What would be the danger?

A. The danger might be that that portion would be filled with gas to such an extent that if not thoroughly and properly sealed it might leak out.

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Next came GEORGE PETTICORD, who being first sworn, testified as follows:



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### Testimony of George Petticord.

Examination by Mr. Alexander:

Q. Were you present when the pressure gauge of No. 6 mine was taken off?

A. Yes, sir.

Q. What day was that?

A. At 12:01 o'clock on December 7th.

Q. Is that the pressure gauge you took off No. 6 fan?

A. Yes, sir.

[Counsel here offers all the pressure gauge records in evidence, and copies of same are filed as Exhibits "Fan Records."]

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Next came EARL POWELL, who being first sworn, testified as follows:

### Testimony of Earl Powell.

Examination by Mr. Alexander:

Q. Look at this paper and tell the jury whether or not that is a correct copy of the morgue record book read and shown to the jury on the first day of the inquiry?

A. Yes, sir.

Q. Will you file it as a part of your testimony?

A. Yes, sir.

[The paper above referred to is here filed as Exhibit "Morgue Records."]

A recess was here taken until 1:30 p. m.

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### JANUARY 11TH--AFTERNOON SESSION.

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Next came HARRY CRANE, who being first sworn, testified as follows:

### Testimony of Harry Crane.

Examination by Mr. Alexander:

Q. Were you at Monongah on the 6th day of December, shortly after the explosion there?

A. Yes, sir.

Q. Did you take off of the fan at No. 8 mine the pressure gauge record that was on at the time of the explosion?

A. Yes, sir.

Q. Look at this and tell the jury whether or not this is the record which you took off of the fan at that time?

A. Yes, sir; it is.

[The said record is here offered in evidence and leave is given to withdraw the original and file a copy thereof.]

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Next came JOHN W. ORR, who being first sworn, testified as follows:

### Testimony of John W. Orr.

Examination by Mr. Alexander:

Q. Where do you live?

A. Monongah.

Q. How long have you lived there?

A. Twelve or fourteen years.

Q. What is your occupation?

A. Engineer at the power house.

Q. Which power house?

A. No. 6.

Q. Did you have charge of the running of the power engines and attending to the switch boards?

A. Yes, sir.

Q. Were you there on the day of the explosion of the mines?

A. I was.

Q. About what time did the explosion occur at the mines?

A. About 10:20, as near as I can remember.

Q. Do you know if the circuit breakers in the power house on the lines leading to No. 6 and No. 8 were thrown out at that time?

A. Yes, sir.

Q. Both of them?

A. Yes, sir.

Q. Which one was thrown out first?

A. I can't say; they were both thrown out so close together I couldn't distinguish.

Q. Did you know what happened when the circuit breakers were thrown out?

A. No, sir.

Q. Did you place them back in?

A. No, sir.

Q. Why not?

A. I was taking indicator cards off of an engine and I was busily engaged at that. In a moment there was a jar and I turned around to see what caused the jar and I saw a man standing in the door and I ran over to see what was the matter and he told me there had been a trip run away.

Q. Did you hear the trip run away?

A. No, sir.

Q. Who told you that?

A. A man by the name of John Riggs.

Q. What did you see at No. 6 mine?

A. I saw the smoke coming out of the mine.

Q. Coming out of the mine?

A. Out of the shaft and haulway both.

Q. Did it continue to blow out some time?

A. Probably five minutes.

Q. How soon was this after you heard the jar, that you went and looked over at No. 6?

A. I went directly over from the engine to the door.

Q. The electric wiring for Monongah No. 8—how is that connected with the power house?—by a wire running through No. 6 or a wire on the outside of No. 8?

A. I don't know.

Q. Are there two systems of wiring in No. 6 and No. 8, or are they connected?

A. I don't know.

Q. If something had occurred at No. 8 mine which did not occur at No. 6 would both of the circuit breakers be thrown out?

A. I never knew them to be pulled out together from the same cause.

By District Inspector LaRue: Q. What length of time do you think elapsed between the time the trip broke loose and feeling the jar?

A. I don't know exactly what time the trip broke loose.

Q. When did you have knowledge of that trip breaking loose?

A. When I walked across and the man in the door that run through told me the trip broke loose.

Q. He had discovered it had broken loose and ran out of the engine house to the power house door?

A. That's what he told me.

Q. Isn't this engine house across the track from the power house?

A. Yes.

By Mine Inspector Paul: Q. Do you remember of a trip having run into the mine several weeks prior to this explosion?

A. I heard of it.

Q. Were the circuit breakers thrown out at that time?

A. I don't remember.

Q. Are the circuit breakers frequently thrown out?

A. Yes, sir.

By District Inspector LaRue: Q. What was the color of the smoke that protruded from No. 6?

A. It was a black smoke and white mixed with it.

Next came HENRY M. PAYNE, who being first duly sworn, testified as follows:

### Testimony of Henry M. Payne.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. My legal residence is in Williamson, Mingo County, West Virginia, but on account of my connection with the West Virginia University, I reside in Morgantown chiefly.

Q. What is your present occupation?

A. Professor of mining engineering at the University.

Q. How long have you been connected with the University in that capacity?

A. Since September last.

Q. What has been your experience in coal mining?

A. I have been acting in the general capacity of civil, mining and consulting engineer, with special reference to mining, during the last ten years. I have had mining experience at Cape Breton Island, Nova Scotia; the Eastern part of British Columbia; the Southern part of Colorado; and in the states of Tennessee, Kentucky, Pennsylvania and West Virginia.

Q. Prior to last December had you visited coal mines in which there had been explosions?

A. Yes, sir.

Q. What places?

A. Two mines recently: Red Jacket and Coaldale. I was also called in consultation in one or two mine explosions in Nova Scotia a number of years ago.

Q. Had you been in Monongah mines No. 6 or No. 8 prior to the explosion on December 6th?

A. No, sir.

Q. Have you been in these mines since that date?

A. Yes, sir.

Q. Have you made a careful examination of both mines?

A. Yes, sir.

Q. Have you made such an examination as to enable you to state an opinion as to the cause of the explosion in these mines?

A. In the absence of any further knowledge, or of any other evidence than that which I have found, I have formed a conclusion as to the location of the origin.

Q. State where that is?

A. In the second crosscut between rooms 21 and 22 on the second right entry on first south in mine No. 8.

Q. What evidence was there that caused you to conclude that that was the initial point of the explosion?

A. There are greater evidences of heat and flame there than in any other place in the mine; more coke and a greater area affected by the explosion.

Q. What were the important factors in the propagation of the explosion through the mine?

A. I would judge the most important factor was unconsumed gas of distillation caused by the primary explosion in the second right heading, and unconsumed because of the lack of the proper amount of oxygen, and which consequently traveled out of that heading, and, whenever it received sufficient oxygen to make an explosive mixture, there were local explosions which, in turn, generated more gasses and in that way the explosions propagated themselves from place to place.

Q. From what source was this gas generated by the secondary explosion?

A. Principally from the coal which was coked, and partially coked, found subjected to extreme temperature in the various places where the local explosions occurred.

Q. Was it from the solid coal on the ribs or the fine coal or dust?

A. Probably a combination of all three.

Q. Did you find evidence in other parts of the mines other than the points you have named where the coal itself on the solid had been distilled or charred or coked?

A. There were some other places, but none of them of sufficient area, in my mind, to have caused so general an explosion; or, in other words, to have generated sufficient quantities of this gas distillation to have propagated itself.

Q. In addition to the powder that is supposed to have exploded what other element of importance aided in the generation of the heat necessary to distill the gasses from the solid coal at that point?

A. This powder was in a crosstent that even if the dust of the room had been loaded out there would have been from day to day a slight accumulation in this crosstent of palpably fine dust held for a long period in suspension, eddied and deposited there. This powder explosion would have stirred this up and together with the heat caused by compression in the crosstent from the formation and explosion of the gas, we have not only the original heat of the powder explosion and the heat of such dust as may have been stirred up by the powder explosion, but also the heat of compression, which would have been caused by the first two and which would have lowered the temperature of ignition.

Q. How near the powder cans were any of the bodies of persons found?

A. I was there at the time these distances were measured, but I do not now recollect exactly; I think about 175 or 200 feet.

Q. Have you any knowledge that would indicate to you how these cans of powder were exploded?

A. I have not.

Q. Would it appear that they were accidentally exploded?

A. I have no way of knowing.

Q. From your mining knowledge and observation is it common for powder to be accidentally exploded in mines?

A. It might not be common but it occurs occasionally. It would depend on the question of how many such occurrences in a year would be called common.

Q. Do you believe it is practical to dampen the walls and pavement of mines sufficiently to prevent an explosion from the discharge of powder?

A. It is not practical to do it to the extent which would be necessary, if it were possible at all to do so, so as to stop such danger.

Q. Is it considered practical to adopt methods that will prevent the loss of life in mining operations?

A. It is within the limit of practical results; yes, sir.

Q. Have you any way of knowing whether or not, if dust had been found in any other parts of the mine, which might have been in a state of approximate dryness, it might have contributed to the violence of the explosion throughout the mine?

A. I don't believe I understand the question.

[Question repeated to witness.]

A. Never having been in these mines before the explosion, I know nothing of their condition prior to that time.

Q. Do you know anything in reference to the pressure that may have been

given by the explosion of the distilled coal gas for the explosion of coal dust, from your present observations or experiments?

A. One pound of coal under theoretically perfect conditions will generate five cubic feet of gas, which would require fifty cubic feet of air for complete combustion and, when any given weight of coal gas explodes, it yields ten volumes of gas. I would say that under theoretically perfect conditions, with a full supply of oxygen, we would get an explosion equal to the pressure of one hundred and fifty pounds to the square inch, but any such amount of gas evidently generated in the second right off first south was in excess of the required amount of air; so the pressure would be very materially reduced, because a large amount of that gas could not explode until it received the amount of oxygen, so that probably one-third of the theoretical pressure would be a reasonable assumption; probably fifty pounds to the square inch.

Q. Assuming that both mines were absolutely free of any fine coal or coal dust and that on the second right off first south and the rooms thereon, there was evidence of an accumulation of fine particles of dust and fine coal, and powder had exploded, as you have related, would the explosion, originating in there, distilling the gas you mentioned, have been sufficient to have caused the destruction throughout the two mines, as in evidence?

A. Yes, sir.

By Mr. Alexander: Q. You think, then, that the pressure created by the generation of this gas would be something like fifty pounds to the square inch after accounting for the fact that not all of the gasses generated were not consumed?

A. Fifty pounds to the square inch would be a very conservative estimate in my mind—higher rather than lower. And with a theoretical pressure of one hundred and fifty pounds possible, it would become a question of what unconsumed gas escaped. As nearly as I can estimate from the amount of air that was in the heading, and following the general estimate, as Mr. Haas describes, on the amount of coal consumed, which I also estimated and checked, and consider very conservative, probably two-thirds of the gas generated in that heading passed out unconsumed, and I am therefore allowing two-thirds of the pressure reduced, and it certainly would not have been less than fifty pounds.

Q. The water gauge on that day was about 2.6 at the fan at No. 8 is my recollection. What would have been the pressure per square foot upon the haulways and entries at that ventilation?

A. It would have been 13.52 pounds per square foot.

Q. And the total pressure would have been about 7000 pounds per square foot?

A. Yes, sir; 7,200.

Q. In passing from the point where No. 2 right leaves the first South would the pressure increase or diminish?

A. It would diminish as it passed out from entry to entry; it would be subdivided.

Q. Where you found the local explosion or flame areas, would this pressure be increased by reason of those additional explosions?

A. It would.

Q. In your examination you found, I believe, some concrete overcasts in No. 8, down toward No. 2 North. Was that pressure per square inch sufficient to blow down these overcasts, or blow them up, as the case might be?

A. I think it would.

Q. The fact is that is a tremendous pressure, is it not?

A. It is.

Q. About how rapidly does steam travel?

A. The velocity of steam depends upon the gauge pressure, but at a normal pressure of one hundred to one hundred and eighty pounds, as would be used in an ordinary boiler, its velocity would be from three thousand to five thousand feet per second.

Q. Did this gas that was generated there, and reinforced, travel as rapidly as steam?

A. Fully as rapidly I would judge.

Q. Can you give us an approximation of the time it took this explosion to pass over these two mines?

A. If it had maintained its initial velocity probably one second would be ample, but in as much as it was decreased in force, and the local explosions from time to time were not sufficient to augment it to its original condition, my estimate would be that it had completed its work in less than five seconds.

Q. You found in there through the mines that you had flame areas in portions of the mine that had not been recently worked and were not being worked at that time. Isn't that true?

A. Yes, sir.

Q. You also found flame areas in portions of the mine that were damp?

A. Yes, sir.

Q. Did you make an examination of No. 6 mine at the foot of the slope?

A. Yes, sir.

Q. That is the point where the runaway trip was wrecked, as we understand?

A. Yes, sir.

Q. Did any evidence of the wreckage remain there at the time?

A. Yes, sir.

Q. Did you find any evidence of short circuiting or burning of the wires at that point?

A. Absolutely none.

Q. In your opinion, did this explosion originate at the foot of No. 6 slope from a short circuiting of the wires there, caused by this runaway trip?

A. It did not.

Q. You know the distance from where this trip was standing on the trestle of No. 6 mine, and the degree of the grade down the slope. Have you made any estimate of the time it would take this trip to travel from where it was standing to the bottom of the slope?

A. I did not measure the length of the slope, but I was given the length and the grade by the engineers of the company, and I computed the problem on the basis of eighteen loaded cars, which at that time I was told was the number which had gone down the slope. Given a trip of eighteen loaded cars with an estimated weight of one hundred and twenty-six thousand pounds, starting from rest at the top of a nine percent. slope and ignoring the axle and wheel friction, including only that between the wheels and the rails, as would be necessary in the case of an incline plane—starting from rest, as I say, and running down this slope nine hundred feet, I estimate that the time required for the trip to reach the foot of the slope would be twenty-five seconds.

Q. At the time this explosion reached No. 6 slope had the trip then reached the bottom of the slope or not?

A. In my opinion it had not.

Q. You mean, then, that you believe the force of this explosion met the trip as it went down the slope?

A. Yes, sir.

Q. Why do you say that?

A. At the time when every one's attention was called to the explosion, shortly after it occurred, there was a great deal of discussion on the part of many as to what connection, if any, the runaway trip had with the cause of this explosion, and with a view either of eliminating it absolutely or to proving that it was the cause, I paid especial attention to that part of my investigation in the early days of the investigation. I conversed with Mr. Orr, the engineer at the power house regarding the observations which he has just testified to. He told me that he was taking an indicator diagram off his engine and felt a jar and thought that something had fallen in the power house; he turned to see what it was and saw some man whom he named, (I do not remember his name) who was just running in the door, and he told him that a trip had broken loose. At that instant both circuit breakers flew out. Now, the velocity with which that jar would have traveled would depend upon the density of the medium through which it traveled. Earthquake waves travel with various velocities, according to the medium; but the observations of scientists in recent years make us safe in assuming that this vibration traveled not less than one thousand five hundred feet per second. The distance of the power house from the mouth of No. 8 mine in an air line is

five thousand feet, and I assume that the jar was caused not by the runaway trip—which would have been unappreciable in the power-house—but by the explosion; so that since the time necessary for the electrical transmission to the circuit breakers may be ignored, the explosion must have happened at least three or four seconds before it was felt by the engineer. Now following that up, I went over to the drum house where the haulage rope is operated. The man in charge there tells me that the instant the ropes slackened he knew a trip had broken loose and just as he shut his engine off he felt the jar and heard the rattle of the door and thought that some one wanted him, and he turned to this door to open it, when his signal light went out, showing that the circuit breakers were then off. That trip had not had more than seventeen or eighteen seconds. I had this man go through the same motions that he made at the time of the explosion and timed them as accurately as possible. Then again the tippie boss, Mr. Knight, told me, as I believe has been testified, that he was talking on the 'phone with some one at the Monongah office; that he heard this man drop the receiver and go across the floor just at the instant he had seen a trip break loose on the tippie. He turned and ran out of the door to the foot of the steps at the tippie. I timed him to do the same thing again and it took him eleven seconds. That led me to the conclusion that the trip had not reached the foot of the slope when this explosion had been heard coming out of No. 8, which caused the man at that end to drop his receiver. I was also advised that the tippie boy was standing on the knuckle at the tippie at the time the trip broke loose and started immediately afterwards, running down the slope off the tippie to the south of No. 6 mine to throw the circuit breakers before the cars could reach the bottom of the slope, and when he had gone a distance of fifty-five yards he was met by the explosion coming out of No. 6 mine. I timed the trip at a trot, such as the boy took, and it would require seventeen seconds. All these various things led me to believe that the trip was on its way down the slope when it was met by the explosion. In addition to that, if the trip had not been met by the explosion it probably would have gone on beyond the foot of the slope onto the straight track and would have wrecked further in; but it was wrecked practically at the foot of the slope. On the assumption, for illustrative purposes, that the explosion met the trip at about the seventeenth second of its journey, during that seventeenth second the trip was going at a speed of approximately thirty miles an hour. Had it continued until the twenty-fifth second it would have been traveling approximately fifty miles an hour. It appears to me, therefore, that at or about the seventeenth second of the trip going down the slope it was met by the explosion which was traveling at a much greater velocity; but in as much as the density of the explosion was not as great as the density of the trip, the velocity of the trip carried it into the face of the explosion and the entire momentum of the trip was not checked until it reached the point at the foot of the slope where we found it wrecked.

Q. Assuming that the trip wrecked at the bottom of the slope, and in that wrecking caused the short circuiting of the wires and the ignition of the dust there, in your opinion, would that explosion so started have gone in the mine as it did? Would it have gone out the B face to the main way and out of the return air-course and main way and haulway at No. 6?

A. It would have unquestionably followed the line of least resistance which would have been first out of B face, second out of the return air-ways and the main entrance. It would of course have gone in the mine some distance—a few hundred feet—but it would not have been of sufficient force to have traveled that far and there is not evidence of heat at this point.

Q. Whatever dust there is that was created in the mining of the coal at the working places—what becomes of it, where does it go?

A. It goes into the return air-courses and is carried by the return eventually to the fan and is found at the fan in large quantities—so that it has to be cleaned out frequently—and for a hundred or a hundred and fifty feet in front of the fan in the return airway is always found more or less accumulation of this dust.

Q. In what condition is it found—very dry or moist?

A. It is always moist and of a consistency like paint, so it may be smeared with the finger.

Q. At the time of this explosion, which occurred on the 6th of December, was the return air course as warm or warmer than the intake air course?

A. Warmer.

Q. Due to what?

A. Passing through the working places of the mine.

Q. And that has a tendency to warm the air and take up moisture?

A. Yes, sir.

Q. And as it returns on the return airway course than the dust that is gathered up is deposited along?

A. Yes, sir.

Q. You have gone over these mines?

A. Yes, sir.

Q. You have observed a number of parallel headings in No. 8?

A. Yes, sir.

Q. What have you to say as to that?

A. As to the method of ventilation?

Q. Yes, sir.

A. In a small mine it would be unnecessary, but in a mine designed to work the area of these mines, it is absolutely necessary and the best system of ventilation, for the reason that it gives us a greater ventilating area and consequently much less velocity, and the less velocity we have the less dust is carried.

Q. At whose instance did you make this examination?

A. The Fairmont Coal Company's.

By Mine Inspector Paul:

Q. Did you hear the testimony of Mr. Frye when he said that he didn't know whether it was one minute or ten minutes after he felt the jar until he saw his pilot light go out?

A. No, sir.

Q. Did you interrogate Mr. Leonard as to how long the trip had been in the mine until the force came out and struck him?

A. No, sir.

Q. Did you hear Mr. Smythe testify that he was at the blacksmith shop at the time the trip went in and it was about a minute after the trip went in the mines until the force came out?

A. I didn't hear all the testimony on the stand, as I have been at the University attending to my duties there. I only know what Mr. Smith told me at the time I made these other investigations which I have related. He told me he was standing about the middle of the wall on the outside of the power house and that the instant the trip went in the mine he ran across toward the blacksmith shop to get his torch in order that he might follow the trip in and see what damage had been done, and I timed him on this and it took him approximately seven seconds. I based my estimate on the information which he gave me at the time, when it was fresh in his mind.

Q. Referring to the map filed as an exhibit here. You speak of the return airway and the dust being carried into that airway. Now take the first right entry off of first south No. 8. We find here No. 12 room is indicated as robbing the pillars and also indicates a curtain at this point. [Here illustrating on map.] At the face of that working place the men are supplied with a fresh current of air. Does that air, after leaving this point, go into the next room?

A. Yes, sir.

Q. And travels through all these rooms, [Here pointing to several places on the map] supplying the men who may be working there with air?

A. Yes, sir.

Q. And continues on up to the head of the entry?

A. Yes, sir.

Q. Before going to the head of this entry it has ventilated all the rooms on that entry?

A. Yes, sir.

Q. And any dust the air may be charged with in No. 11 room, for instance, will be carried through all these other rooms?

A. Yes, sir; if not previously deposited.

Q. Before going into the return airway?

A. Yes, sir.



Q. That current going through this large district does not have the same velocity it has on the return airway?

A. No sir.

Q. The inference would be that it would deposit a large percent of the suspended dust?

A. A large percentage of dust would be deposited, but the total percentage would be so small that a large percentage of a small thing would still be very small.

Q. In reference to the moisture of the return airway being in excess of the intake, can the return air deposit any of its moisture unless it comes in contact with the air that has a less temperature than the return air?

A. No, sir; the temperature must be reduced or the pressure must be increased.

Q. Is there any special advantage in having the return airway more moist than on the intake air which supplies the men with ventilation?

A. We know that the main entries and haulways were sprinkled and the intake air—in passing over these sprinkled areas—naturally by evaporation or by absorption, as it raised in temperature, picked up more or less of this moisture, so that by the time it reached the return airways, where, as I have stated, the greatest accumulation of dust is found, there was an advantage in having it moist because it served to keep down the dust.

Q. Is there much probability of the ignition of dust on the return airway by subjecting to high temperatures by reason of blown out shots or accidental discharge of powder as on the working places or on the intake current?

A. That would depend entirely on the strength of the brattices.

Q. Is the necessity of men to travel and work on the return airways as great as on the working places?

A. No, sir.

Q. Or firing shots on the main return airways?

A. No, sir.

Q. What is the advantage of having the dust moist on the main return airway?

A. The advantage has been illustrated in the case of this explosion by the fact that we have no evidence of fire on any of the return airways.

By District Inspector LaRue: Q. When did you enter No. 6 slope since the explosion?

A. Three or four days after the explosion; I don't remember the exact date. It was the same day that I was first called.

Q. What did you find in the way of a wrecked trip on that day?

A. The trip had been partially cleaned up. There was sufficient room for us to get by at that time.

Q. How many cars remained there?

A. I don't know.

The witness, W. H. BAILEY, being recalled, further examination, testified as follows:

### W. H. Bailey, Recalled.

Examination by Mr. Alexander:

Q. In the vicinity of this second right first South No. 8, in what condition did you find the ribs along the headings?

A. What we term blistered.

Q. What was that an evidence of?

A. Of very high temperature.

Q. Was there any evidence of flame?

A. No, not as we discovered it.

Q. Did you find anywhere along the main heading any evidence of grinding from the effects of this explosion?

A. Yes, sir.

Q. At the points where you found the grinding effect—what was the condition of the ribs?

A. Around the mouth of room No. 8 at the upper end—recollect that all of the rooms from 1 to 8 had been pillared, consequently there was no passage way through these rooms—the indications of force from that point outward was so great that it appeared to have scrubbed the walls smooth.

Q. Usually in mines you find a quantity of soot or black along the walls?

A. Yes, sir.

Q. Did you make a careful examination of this second crosscut between rooms 21 and 22?

A. Yes, sir; seven or eight times.

Q. Do you know where the machine men were found in room 21?

A. Yes, sir; it is indicated on the map.

Q. Here is a map which, on a larger scale, shows these two rooms and the crosscuts. Indicate on the map where the machine men were found.

A. [Pointing to the map.] This is the crosscut we are talking about where the explosion of the powder occurred. The head of the room is what is known as a barrier crosscut. The machine man had evidently brought his machine from some room near here—say room 30—and had taken it up the heading and was found lying on the right, or inside of the machine, in the act of putting a sprag in to hold the machine while he unhitched his mule, when caught.

Q. The information is I believe that the mule was still hitched to the truck on which the machine was hauled at the time of the explosion?

A. Yes, sir.

Q. Where was the bit boy found with reference to the second crosscut?

A. I should say the bit boy who attended this machine was found a distance of possibly one hundred and fifty or one hundred and sixty feet from this crosscut.

Q. Indicate where he was found?

A. Here is room 20; at about this point or possibly a little lower down; that would be one hundred and fifty feet or possibly a little more from this point to this point.

Q. What is your information as to some freshly sharpened bits having been found on the machine after the explosion?

A. We tried to determine whether this machine had been recently served or whether this boy was on his way to serve it. I made an examination in company with Mr. Hesse. The bits had been delivered to this machine as they were found on the machine in a can standing on the machine. The bits in the chain I should judge had cut two or three runs.

Q. In going from the point at which the machine man and his mule were found to the point where the boy's body was found, would he go by the exact place in which you found the explosion of the powder?

A. He most certainly would. He couldn't go any other way. He must come through this crosscut up here and up there [Here illustrating on the map] or through this crosscut down to the heading and room 20 or down 21 past this crosscut into the first between rooms 20 and 21 and down to the point where found.

Q. Assuming that this explosion of powder was the initial cause of the general explosion, have you any theory as to how the powder was exploded or ignited?

A. The evidence points to this: That this boy was at the machine. There is no other evidence that any one had passed this point, except the boy, immediately preceding the explosion; so I rather couple the boy with that explosion as he was evidently the last person who passed that way.

Q. Is there any evidence of any other bodies being found in that vicinity?

A. No, sir; except the machine man who was found lying on the right of his machine. I am also informed as to the condition of this body: That the clothes were burned off of him; that is, they were so charred that they fell from his body when an attempt was made to move the body.

Q. Is there any information as to his body having been mutilated?

A. I think not—nothing but burned.

Q. After you have connected the boy with the explosion of that powder how do you account for his body being found as far away from it as it is?

A. All boys that work in the mines where powder is used will testify to the

fact that they are always inclined to steal a little powder. They have various ways of playing with it; some want it to take it out doors to have some fun with and others want it to play a trick on the machine man by making what we called a spit-devil—that is, dampening it and squeezing it up in a ball, lighting it and then running away from it: It would be my opinion that this powder was ignited by that boy. He would have not necessarily exploded the two cans. To bring about the explosion of the two cans he could have started a train of powder, or could have a little pile of powder and set a squib to it so that he could get a sufficient distance away, and the explosion of one of the cans would create sufficient force to explode the other. He would have had sufficient time to get beyond the crosscut between rooms 21 and 22, because a boy, like a man, runs pretty fast when scared.

Q. In your examination of these mines did you find any powder or powder cans in other parts of the mine that were not exploded?

A. Many of them.

Q. Did you find squibs elsewhere in the mine not exploded?

A. Lots of them.

By Mine Inspector Paul: Q. Was the line of travel from the face of No. 21 to the entry obstructed in any way that would cause a boy to go through the crosscut?

A. No, but that would be the natural way to travel and get out of the way of the man, and, if he saw the flame he would naturally take into the first place out of the line of it.

Q. Do you know if he had with him any parts of bits that had been used?

A. He had none; none were found at least.

Q. Is it customary for a bit boy, when he serves a machine, to get the dull bits?

A. If he has any; but in this case he didn't have any.

Q. Do you know anything about the habits of the boy or his tendency to play practical or impractical jokes?

A. No, sir; but I know the habits of most boys including my own, when I was a boy.

By District Inspector LaRue: Q. Then you think this explosion originated in the way of a joke?

A. I didn't say that. I say if the boy was the cause of it the possibility is that he was trying to play a joke on the machine man. The powder didn't light itself.

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Next came E. V. BYRNE, who being first sworn, testified as follows:

### Testimony of E. V. Byrne.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Elkins, West Virginia.

Q. What is your occupation?

A. State mine inspector.

Q. Are you the chief inspector?

A. No, sir, district mine inspector.

Q. What district?

A. No. 4.

Q. How long have you been mine inspector?

A. Since December, 1904.

Q. By whom were you appointed?

A. By Governor White and James W. Paul, chief.

Q. Were you afterwards re-appointed by Governor Dawson?

A. I suppose so.

Q. In your work as district mine inspector have you ever been in charge of the mines of the Fairmont field?

A. Yes, sir.

Q. Up until what time had you charge of the inspection of the mines in the Fairmont field?

A. Up until July, 1907.

Q. Did you visit Monongah mines No. 6 and No. 8?

A. Yes, sir.

Q. I have here a certificate of inspection of April 22, 1907, for Monongah No. 8 mine. Look at that and state whether or not this is a copy of a certificate that you made in reference to your inspection of that mine?

A. I think it is, but I generally sign them.

Q. Does that certificate bear your signature?

A. There is no signature on it that I can see.

Q. Do you verify that as being a copy of the certificate that you furnished Mr. Gaskill?

A. Well, I don't know; it looks like the way I made them out, but I generally sign them; I may have overlooked that one.

Q. Can you tell by the typewriting?

A. It looks like my typewriting; yes, sir.

Q. Well, state if you verify these certificates?

A. I suppose it is one of my certificates; it looks very much like it anyhow.

[The certificate above referred to was heretofore filed as a part of the evidence of J. C. Gaskill, marked "Gaskill No. 1".]

Q. Please read that certificate to the jury.

[Witness here reads the certificates to the jury.]

Q. Here is a certificate dated April 24, 1907, for Monongah mine No. 6. Is that a copy of a certificate you furnished to Mr. Gaskill?

A. Yes, sir.

Q. Please read that certificate to the jury.

[Witness here reads to the jury said certificate, which has been heretofore filed with the testimony of J. C. Gaskill, marked "Gaskill No. 11".]

Q. It appears that accompanying this report you sent a letter, bearing date May 6th. Please look at that letter and state whether or not you wrote the letter to myself (Mr. Paul) and furnished Mr. Gaskill a copy of the same?

A. Yes, sir; I did.

[The letter here referred to has been heretofore filed with the evidence of J. C. Gaskill, marked "Gaskill No. 7."]

Q. Please read that letter to the jury.

[Witness here reads the said letter.]

Q. I hand you a letter dated May 20, 1907, apparently from Mr. Gaskill. State if this is a copy of a letter you received from Mr. Gaskill?

A. Yes, sir.

[The letter referred to has been heretofore filed with the evidence of Mr. J. C. Gaskill and marked "Gaskill No. 8."]

Q. Please read the letter to the jury.

[Witness here reads the same.]

Q. I hand you a letter, dated May 30th, bearing your own signature. Please state if you wrote that letter to Mr. Gaskill?

A. Yes, sir, I did.

[The letter here referred to has been heretofore filed with the evidence of J. C. Gaskill, marked "Gaskill No. 9."]

Q. In the line of your official duties are you required to make an annual report to the chief of the department of mines?

A. Yes, sir.

Q. Did you submit a written report for Monongah mine No. 6, as mine inspector for the 1st district, for 1907?

A. Yes, sir.

Q. Please look at this paper and state if this is a copy of that part of your report relating to Monongah mine No. 6, for 1907?

A. Yes, sir, it is.

Q. Please read that to the jury.

[Said report, which is filed as a part hereof, marked "Byrne A." is here read to the jury as follows:]

ANNUAL REPORT E. V. BYRNE, MINE INSPECTOR OF FIRST DISTRICT,  
WEST VIRGINIA, MARION COUNTY, 1907.  
FAIRMONT COAL COMPANY.

No. . . . . Monongah Mine No. 6. This mine is located on the north side of the West Fork River at Monongah. It is a slope mine operating the Pittsburg coal on the double entry system. Ventilation is produced by a fan and is good. Drainage is also good.

Small quantities of gas are found in different places in the mine.

All powder is carried into the mine in cans of five pounds capacity.

The use of mixed oil has been abandoned and the J. V. Lewis test is now in use.

With a full force of men and present mine developments this mine is capable of producing 3500 tons of coal per day.

The second opening meets all the requirements of the law.

There were two accidents in this mine, one fatal, caused by a fall of slate; the other not fatal, caught by a car.

A small per cent of shooting on the solid is practiced by the pick miners.

Rules were posted, blankets and stretchers kept on hand. A map of this mine, extended to Jan. 1907, has been furnished this office.

A. J. RUCKMAN, Supt. THOS. DONLIN and JAMES RODGERS, Mine Bosses.

TIM LYDON, ANDREW MORRIS and E. TRADER,  
Fire Bosses.

Q. Please look at this paper which I hand you, and state if it is a copy of a part of your report for 1907, relating to Monongah Mine No. 8?

A. Yes, sir; it is.

[Said report, which is filed as a part<sup>a</sup> hereof, marked "Byrne No. B" is here read to the jury, as follows:]

ANNUAL REPORT E. V. BYRNE, MINE INSPECTOR OF FIRST DISTRICT,  
WEST VIRGINIA, MARION COUNTY, 1907.  
FAIRMONT COAL COMPANY.

Monongah Mine No. 8.

This mine is located on the north side of the West Fork River one half mile south of Monongah. It is a drift mine operating the Pittsburg coal on the double entry system.

Ventilation is produced by a fan and is good. Drainage is also good.

A small quantity of gas is found in different places in the mine.

All powder is carried into the mine in cans of five pounds capacity.

The use of mixed oil has been abandoned and a good quality of oil known as the J. V. Lewis test is now being used.

With a full force of men and present mine developments this mine is capable of producing 6330 tons per day.

The second opening meets all the requirements of the law.

There were non-fatal accidents in this mine. Three were caused by falls of slate; two by accidents with cars; three were caused by non-competent men handling explosives which caused a blowing out shot.

A small per cent of the coal mined by pick miners is shot on the solid.

Rules were posted, blankets and stretchers kept on hand.

A map of this mine, extended to Jan. 1907 has been furnished this office.

A. J. RUCKMAN, Supt. J. M. MCGRAW and PATRICK LAUGHNEY, Mine Bosses.

JOHN HYLAND and P. J. KEARNS, Fire Bosses.

Q. Have you been in Monongah mines No. 6 and No. 8 since the explosion of December 6th?

A. Yes, sir.

Q. Did you make an examination of the mine with the view of determining what in your judgment was the cause of the explosion?

A. Yes, sir.

Q. Did you join in making a joint report in reference to it?

A. Yes, sir.

Q. Please examine this manuscript and state whether or not that is that report and if that is your signature?

A. Yes, sir; this is the report we made jointly, and bears my signature.

[Said report, which is marked "Byrne C.," is here filed as a part hereof and read to the jury as follows:]

#### REPORT OF DISTRICT STATE MINE INSPECTORS.

Fairmont, W. Va., January 3, 1908.

"HON. JAS. W. PAUL,

Chief of Department of Mines.

Dear Sir:

In compliance with the state law, we do hereby submit the following report of the disastrous explosion which occurred December 6th, 1907, in the Monongah Nos. 6 and 8 mines, operated by the Fairmont Coal Company.

After a careful and thorough examination of these mines we find them very dry and the principal part of the coal was being mined by electric chain machines which created a large quantity of coal dust and this being conveyed to all conceivable parts of the mine by a high velocity of air, and under these conditions we do think this explosion was caused from coal dust. The probable point of origination we believe to be at the face of the third left entry off of second north in No. 8 mine, which was followed by a series of explosions throughout the two mines. We arrived at this conclusion because of the conditions existing; which are as follows:

This entry was exceedingly dry and dusty. A shot at the face of the entry had been fired, four feet eight inches of the hole remaining; two feet eight inches of the hole had blown down, two feet of the remaining was in the solid coal and was practically a blown out shot.

A shot had also been fired in room 23 which room was 25 feet deep, the coal being down. The bodies of the men which had worked at and near this face of this heading were found at mouth of room 20 and 21. Five of those bodies were found at the mouth of room 20 and two at the face of said room. Six bodies were also found in the neck of room 21. The finding of these bodies at this point would indicate that they had retired there while their shots were being fired. The evidence in this entry is conclusive that the force came from the face towards the second north entry, which is fully demonstrated by the rounded corners of the coal on the inby exposures. A motor and trip of twelve loaded cars at eighteen and nineteen rooms seem to have offered resistance to the force diverting it into the rooms above the trip where it appears to have been supplied with additional force coming out the said rooms, derailing the said cars against the north side of the entry.

At the mouth of this third left on the second north entry there was every indication that the force divided at this point, going toward each mine as shown by the rounded corners of the ribs and bent switch levers. Other places in the mine show evidence of a series of explosions having originated therein, viz:

First: No. 22 room on the first left off of second north entry shows indications of gas having been ignited. The conditions at the face show the effect of great heat over the roof and sides, only half way down to the pavement. In the roof at rear end of a machine standing on the right hand rib there existed a large cavity where gas might have accumulated and which might have been ignited by the machine man setting rear jack. The machine truck was thrown across the track from the face and the indications show that the force traveled right and left through breakthrough to number 21 and 23 rooms, throwing the track in No. 23 toward No. 24 room and debris being thrown through breakthroughs towards No. 21 room; the force continuing its course down the lower rooms toward the mouth of the entry. A trip of loaded cars with motor attached standing on the entry at Nos. 16 and 17 rooms were thrown against the north rib of entry, indicating that the forces had been reinforced in said room.

Second: at the face of the main north airway, approaching the third north entry a serious disturbance occurred which seemed to be due to an overcharged shot. The man working at this place was literally torn to pieces and the tracks

torn up and strewed along down the entries toward the mouth. This man was probably standing in the last breakthrough near the face.

The body of a man which was nude and burned, but not mutilated, was found at the face of the entry parallel to the one in which the shot was fired: he was evidently protected by being out of the line of force. Judging from the conditions as to the mutilated body of a man, the direction of the wreckage, etc., it would be reasonable to conclude that the force had its origin in these entries, but upon following its course outward we come in contact with evidence of greater force coming from other directions.

Third: On second right entry off first south in mine No. 8 a trip of cars with motor was badly wrecked at 26 and 27 rooms. The indications were conclusive that the force wrecking this trip came out the entry.

In 31 room, which was only driven off the entry about twelve feet, on the extreme left of face was a drill hole which was improperly placed, and had been fired, three feet nine inches of the hole remaining. A man was found in this room.

Rooms below this point show evidence of intense heat and charred dust.

Nowhere in the two mines was such great heat in evidence as in rooms on this entry.

At time of exploring the mines after the explosion we found fire damp in several places in these mines, but only found it after the ventilation was restored in the third north heading and 6th left air course off E face entry.

A large piece of concrete which had been in part of the overcast at the junction of the first south with main entries was carried by the explosion sixty feet towards the second right entry off 1st south, which was evidence that the explosion had gone in that direction.

The conditions in each of the three places would warrant the opinion that the initial explosion may have occurred in either. But upon tracing the direction of the forces, we are met by evidences of greater forces moving in one general direction along the main headings.

This is not the case at the mouth of the third left off second north, where, as heretofore mentioned, the evidence goes to show that the force coming out of the 3rd left divided, part going to No. 6 mine and the other to No. 8. The switch lever at the mouth of fourth left off second north and spread rail are bent toward No. 6 mine.

The post which supported the door separating the two mines was found standing in such position that no force could have thrown it toward No. 6 without breaking it, while the least force exerted would have thrown it toward No. 8 mine.

This evidence we deem conclusive that the force of the explosion traveled from No. 8 mine into No. 6 mine; which was most pronounced in the following sections:

At the face of H face entry a body was blown to fragments and all other conditions indicated a violent force here, which continued on its course to the mouth of H face and up G face heading where it gained additional force, and returning down G face entry, thence down 3rd, 2nd and 1st rights entries off G face through room connections to the face of E face heading, where evidences existed of violent force, evidently it was reinforced at the head of sixth left, E face, causing a terrific force to go down to and out E face entry as evidenced by the dismembered and mutilated bodies of men and animals found on E face and the demolished cars and the destruction of the over casts at the mouth of the butt headings and the overcasts at the junction of the main entry.

The forces coming out of E face joining with the force coming down the main entries continued its course on out the headings and airways, exhausting itself in the left hand workings, intake and outlet airways.

We are of the opinion that the trip of loaded cars which broke away and ran down the slope was merely a coincident with the explosion and bore no relation to the explosion, except that it could have caused only a slight compression of air.

A thorough examination of the wreckage of the runaway trip and the surroundings at this point fails to disclose any evidence that the explosion originated at this point.

In our judgment, dust being the principal factor in the fearful explosion, causing great loss of life and destruction of property, we believe that the loading out of the dust as far as practicable, and the keeping of all parts of the mine well

watered, especially at, and near the working places, would minimize the probability of an explosion. And by the adoption of safety explosives, the danger of an explosion would be much less probable.

It is an undisputed fact that the condition of a mine as to moisture is governed largely by atmospheric conditions and temperatures; a mine which through the summer months may be moist throughout, by sudden lowering of the temperature, becomes dry, especially where large volumes of air is circulated through the mine, and in the absence of mechanical wetting of the mine.

The ventilation in these mines was produced by two large fans propelled by steam power, and conducted principally by brick and concrete overcasts and stoppings, was in our judgment generally good throughout both mines, and the system and modern plans of the mines of the best and second to none in the State.

Respectfully submitted,

No. 1.

No. 2 FRANK E. PARSONS.

District No. 3.

No. 4 E. V. BYRNE.

No. 5 EARL A. HENRY.

No. 6 BONNER H. HILL.

No. 7 J. A. STRAUGHAN,

No. 8 JAMES G. BOYD.

No. 9 JOHN PHILLIPS.

No. 10 D. R. PHILLIPS.

No. 11 WILLIAM WARNER.

No. 12 P. A. GRADY.

*State Mine Inspectors of W. Va.*

Q. Have you ascertained any facts or obtained any information that would cause you to change your opinion as incorporated in this report?

A. No, sir.

By District Inspector LaRue: Q. When did you come to the scene of the explosion?

A. December 7th. I got there about 11:30 o'clock.

Q. When did you begin your first examination as to what caused it?

A. On the 7th.

Q. What time did you begin your investigation on the 7th?

A. I went in No. 6 mine, but I do not know exactly what time it was. I came out on the 8th, about 8 o'clock.

Q. How much of the wrecked trip remained there when you were in the mine?

A. I didn't count the cars.

Q. How many tracks were closed?

A. One, I think.

Next came FRANK E. PARSONS, who being first duly sworn, testified as follows:

### Testimony of Frank E. Parsons.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Clarksburg.

Q. What is your occupation?

A. District mine inspector for West Virginia.

Q. What district?

A. Second.

Q. How long have you been district mine inspector?

A. Since August, 1905.

Q. By whom were you appointed?

A. Governor Dawson.

Q. Were you in Monongah mines No. 6 and No. 8 prior to the explosion?



A. On one occasion, I believe the 2nd of August, the past year: I was sent there by a special telegram from yourself (Mr. Paul) to make an investigation of a fatal accident that occurred in the mine. I walked to the point where the accident occurred and made an investigation, took the testimony of a few eye witnesses, and then walked to the outside.

Q. What was the nature of the accident?

A. Fatal accident caused by a fall of slate.

Q. Have you been in these mines since the 6th of December—the date of the explosion?

A. Yes, sir.

Q. Have you formulated an idea as to the cause of the disaster?

A. Yes, sir.

Q. Have you heard the reading of the report in connection with the testimony of Mr. Byrne.

A. I heard the report read.

Q. You may state if you corroborate all of the contents of that report. If not, please state what exceptions you took to the report?

A. I took exceptions to the report and filed them in writing with the chief of the department of mines.

Q. Please examine this and see whether or not it is a copy of the exceptions which you filed.

A. Yes, sir; it is.

[The said report is here filed as a part hereof, marked "Parsons A," and is read to the jury as follows:]

FAIRMONT, W. VA. Jan. 5th, 1908.

HON. JAS. W. PAUL,

Chief of the Dept. of Mines of West Virginia:—

DEAR SIR:

I cheerfully coincide with the above report, with the following exceptions:

First: On page one it reads as follows:

"The probable point of origination, we believe to be at the face of third left entry off second North, in No. 8 mine." It should read "The origination of the explosion, we believe, to be on the third left butt entry off of the second North in No. 8 mine."

Second: In addition to the description of the conditions found on examination of this entry, the following should be inserted:

"In cross cuts, separating rooms Nos. 13 and 14, on this entry, a violent explosion of powder had evidently taken place, as two exploded powder cans of five-pound capacity were found therein, with sufficient evidence of a former violent internal explosion in each. Tracks, props and debris were violently hurled in opposite directions from this point. Two bodies were found near this point, badly burned, which we believe was in the cross cut at the time of the explosion of this powder occurred. Either of the above described conditions might have caused this deplorable accident, and one or the other of them, in our judgment, did cause it."

Third: On page second of the report, the reason assigned for the force coming out of the rooms, I think illogical, as it is my judgment that the original heat caused by one or the other of the above described conditions, ignited the dust, distilling therefrom the hydro-carbons it contained, and at the same time consuming the overplus of oxygen contained in the normal mine atmosphere, and had probably traveled some distance from the initial point along the entries, and in the rooms, in the form of flame, before an explosive mixture of gas and air were combined. This, I think, a reasonable solution of the force coming out of the rooms, in case it originated in either place mentioned. As proof of the above I cite you to the position and condition of the three bodies found underneath the two loaded cars, which stood directly in front of room 20. These bodies were found with no lacerations. The cars were derailed and hurled toward the North rib of entry, which separated it from the air course. I think it would have been impossible for these bodies to have been blown under these cars if they were standing, or even sitting, at the time of the explosion, without great laceration. The position and condition would indicate that they saw the flame approaching and had lain down for the purpose of having it pass over them when the explosion occurred, which blew them under the cars.

Fourth: The description of the conditions found in the main North air course, No. 8 mine, of course would have to be stricken from my report as I did not visit this section with the party on official examination on account of serious sickness.

Truly yours,

FRANK E. PARSONS,  
Mine Inspector Second  
District of West Virginia.

Q. You think that dust was an important factor in the propagation of the explosion in the mines?

A. Yes, sir.

Q. Do you believe it is practical to dampen a mine sufficient to prevent dust explosions?

A. Yes, sir; by making the dust thoroughly wet would prevent a dust explosion. It would have to be made thoroughly wet and kept that way.

Q. Do you believe that black powder is dangerous to use in mines?

A. Yes, sir; in the hands of unskilled workmen.

By Coroner Amos: Q. Do you think the dust was evidenced there before the explosion as it is now?

A. No, not in such large quantities. The dust before an explosion is not so much in evidence. The force and violence of an explosion suspends the dust in the air. Before an explosion you might travel over a distance and think that it was not dusty at all as it had all settled down on the coal and lodged in different places.

By District Inspector LaRue: Q. Do you consider it safe to water dust in a gaseous mine?

A. Yes, sir.

Q. And keep it watered down?

A. Yes, sir.

Q. More so than to keep it cleaned up?

A. That would be owing to the method you adopt in cleaning out the dust.

Q. Have you examined the conditions under the watered dust in gaseous mines?

A. The conditions would be wet if watered properly.

Q. Have you ever examined the dust at the bottom in a gaseous mine?

A. I don't know as I have ever bored a hole down and examined it. If it is properly wet, in the manner I mean, it would be wet at the bottom is all I can say. I can say I would not expect to find gas there; I would expect to find it at the top.

By Prosecuting Attorney Lowe: Q. When were your exceptions prepared?

A. I dictated them to a girl across the street here and I do not know exactly what day it was, but I believe she dated them on the 5th. I never noticed it until yesterday.

Q. At the time the inspectors met for the purpose of making a report you pointed out the objections you had, did you?

A. Yes, sir.

Q. And afterwards you incorporated them in this report, which you file as a part of your evidence?

A. Yes, sir.

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Next came EARL A. HENRY, who being first sworn, testified as follows:

### Testimony of Earl A. Henry.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Mason county, West Virginia.

Q. What is your occupation?

A. District mine inspector.

Q. How long have you been in that position?

A. About seven years.

Q. By whom were you appointed?

A. Governor White, and afterwards reappointed by Governor Dawson.

Q. Have you examined Monongah No. 6 and No. 8 mines since December 6th—the day of the explosion?

A. I have.

Q. Have you made a careful examination of the mines with the view of ascertaining the cause of the disaster?

A. I have.

Q. Did you join in submitting a joint report, with some of the other district mine inspectors?

A. I did.

Q. Examine this report and see if it is the one in which you joined and if that is your signature to the same?

[Paper marked "Byrne C" here handed to witness.]

A. Yes, sir.

Q. From any facts or information you have obtained since the making of this report do you still adhere to the opinion as contained in this report?

A. I do.

Q. State if at the time this report was compiled, Mr. Parsons took exceptions to certain features of it?

A. I so understood him—to take exceptions to part of it.

Q. What experience have you had in coal mines?

A. Working in them in one capacity or another for the last thirty-seven years, in Ohio and West Virginia.

Q. Have you been in other mines in which explosions have occurred?

A. Yes, sir.

Q. About how many?

A. Eight in addition to these two here.

Q. Were some of these dust explosions?

A. In my judgment they were.

Q. Did you find evidence of powder having exploded in the different parts of the two mines?

A. In some few places; five-pound flasks that had the appearance of having exploded and in one place a keg that had the appearance of having been exploded.

Q. What is your idea of the method that dust explosions travel through the mine, having been once started?

A. I believe it liberates the hydro-carbons and distilled gas from the dust and is reinforced in the dry, dusty sections or where there may be an accumulation of dust.

Q. Did you examine the conditions on the second right first South?

A. Yes, sir.

Q. Do you think the conditions in there could have been brought about by an explosion having gone into it off of third left off of second North?

A. I do.

Q. Do you find evidence of higher temperatures in that section?

A. Yes, sir.

Q. How do you account for the temperature being higher in that section?

A. The dry conditions of the room on that section and the supply of fresh oxygen from the intake on the first South heading.

Q. Have you been in mines where gas explosions have occurred?

A. Yes, sir.

Q. In compiling your report did you take into consideration your former observations and experience?

A. Yes, sir; I did.

By District Inspector LaRue: Q. When did you come here to make your examination?

A. I arrived here on the morning of the 7th—the day following the explosion.

Q. When did you first enter No. 6 slope?

A. Some time in the afternoon of that day.

Q. When did you first make an examination of that slope?

A. Not until after the recovery of the bodies; I don't remember what day it was.

By Mr. Alexander: Q. You concur in that portion of the report which says that in your opinion this explosion did not originate at the bottom of No. 6 slope?

A. I most certainly do.

By Mine Inspector Paul: Q. Do you have anything further to say in reference to the wetting of mines—in regard to using various systems of watering?

A. I think it is practical to water with pump and hose, as I noticed a few days ago they had in the New England mine, or a system of pipe line. I am of the opinion that anything is practical that will save life or the destruction of property.

Q. Explain that arrangement at New England, please?

A. They had a pump operated by an electric motor and hose connections to pump the water into the water box and were conveying it around with a mule when I saw it. And fifty feet of hose with nozzle reduced to about three-eighths possibly. It would be easy to take the car in any section of the mine where the track was and start the pump and spray around the roof and ribs.

Q. Do you consider that a practical method of watering?

A. I do.

Q. And while it might not absolutely do away with dust explosions, don't you think it would very materially lessen the danger?

A. I most certainly do.

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Next came J. A. STRAUGHAN, who being first sworn, testified as follows:

### Testimony of J. A. Straughan.

Examination by Mine Inspector Paul:

Q. What is your occupation?

A. District State mine inspector for the Seventh district.

Q. What experience have you had in connection with coal mines?

A. About eighteen years.

Q. Have you been a coal miner?

A. Yes, sir; I worked from the capacity of trapper to superintendent.

Q. Were you in the Monongah mines No. 6 and No. 8 prior to the explosion?

A. No, sir.

Q. Have you been in them since?

A. Yes, sir.

Q. Did you make an examination of the two mines with the view of coming to a conclusion as to the cause of the explosion?

A. Yes, sir.

Q. Did you join with some of the other district mine inspectors in making a joint report as to this matter?

A. Yes, sir.

Q. Look at this and state whether or not it is a copy of your joint report.

[Here paper writing marked "Byrne C," is handed to witness.]

A. Yes, sir; it is.

Q. Do you still corroborate the contents of that report?

A. I do.

Q. Have you been in mines where there have been dust or gas explosions?

A. Dust explosions.

Q. What was the last mine and where?

A. Detroit, Kanawha county.

Q. Do you know whether that mine ever had any explosive gas in it?

A. I don't think it ever had.

Q. Have you ever found any gas in it since?

A. No, sir.

Q. Do you know the cause of that explosion—how it originated?

A. Yes, sir.

- Q. In what way did it originate?  
A. From a blown out shot and dust.  
Q. Was there any exception taken to that position in regard to your opinion as to the cause of it?  
A. I think it was the opinion of every one that it was a dust explosion caused by a blown out shot.  
Q. Did you find conditions in that mine similar to some of the conditions found at the Monongah mines?  
A. Yes, sir.  
Q. With respect to heated areas, coke and charred dust?  
A. Yes; but not as much charred dust as in these mines.  
By District Inspector LaRue: Q. When did you make your examination of the two mines?  
A. I can't just say what day it was.  
Q. Not until after the bodies were recovered?  
A. No, sir.
- 

Next came J. E. BOYD, who being first sworn, testified as follows:

### Testimony of J. E. Boyd.

Examination by Mine Inspector Paul:

- Q. What is your occupation?  
A. District mine inspector.  
Q. What experience have you had in connection with coal mines?  
A. Thirty-two years.  
Q. In what territories have you had experience?  
A. Maryland, Virginia and West Virginia.  
Q. Have you acted as mine superintendent or mine foreman?  
A. Yes, sir: I was general mine foreman for the Pocahontas mine, Virginia.  
Q. Have you worked in mines in which gas was liberated or generated?  
A. I have.  
Q. Have you visited mines in which there have been explosions?  
A. I have.  
Q. Dust or gas explosions?  
A. There was some little difference of opinion whether dust or gas. I have visited mines where there was a gas explosion and other mines where there was a difference of opinion.  
Q. Have you ever experienced the effect of after damp after an explosion?  
A. I have.  
Q. In a serious way?  
A. It was said to be serious.  
Q. Had you visited Monongah mines No. 6 and No. 8 prior to the explosion?  
A. No, sir.  
Q. Have you visited them since?  
A. I have.  
Q. Did you make a thorough examination of these two mines?  
A. I think I have been almost all over them.  
Q. Did you assist in the recovery of some of the bodies?  
A. Yes, sir.  
Q. Have you been through the mines since the ventilation has been restored?  
A. I have.  
Q. From your experience in either of the mines in your judgment would you consider these to be gaseous mines in the true sense of the word?  
A. Not knowing the mines previously, and not being acquainted with the coal, I could not decide.  
Q. Since the ventilation has been restored have you found any evidence of gas in either of the mines?  
A. I found it in two places.

Q. In large or small quantities?

A. In small quantities.

Q. Did you take part in compiling a joint report along with several of the district mine inspectors?

A. I did.

Q. Examine this, please, and state if this is that report?

[Exhibit marked "Byrne C" is here handed to witness.]

A. Yes, sir; it is.

Q. Do you still confirm this report as being your judgment?

A. I do.

Q. Is the dust in a mine capable of being ignited by an ordinary miner's torch?

A. I think not.

Q. What would cause the ignition of dust in a mine?

A. Intense heat—such as a blowout shot.

Q. How about the explosion of powder?

A. Black powder would do it, in my opinion.

Q. Do you know if powder in confinement, or loose, when exploded, generates the greater heat?

A. When it is confined—set off all at once—it would cause the greater heat.

Q. Would a blown out shot create a higher flame temperature than the explosion of a can of powder?

A. No; I believe a can of powder would be greater than a blownout shot. It would depend on the size of the can of powder. Now, a twenty-five-pound can—

Q. I am speaking of a five-pound can of powder?

A. I believe the blownout shot would give the higher temperature.

Q. What is the effect of a blownout shot in the way of stirring up dust on the roof or pavement and putting it in suspension, in comparison with a five-pound can of powder?

A. The force of the shot and the flame igniting the dust in suspension would cause a hotter force in that particular part.

Q. Would you get that same force with the explosion of a small can of powder?

A. I do not think there would be the same force to it.

By Prosecuting Attorney Lowe: Q. In regard to watering the mine which you touch on in your report: What practical method could you mention for that?

A. I would suggest either piping the place or using the water power such as I observed over in the New England mine a few days ago.

Q. We understand that the amount of dust made in undermining the coal by the machine is not the only dust that accumulates in the room or mine?

A. No, sir.

Q. What are the other sources?

A. The coal that falls from the cars, falling on the rails, and the tramping of the animals and men.

Q. How about the shooting of the coal?

A. That would cause dust, too.

Q. That part of the dust which is generated in that way—a part of it sifts into the nooks and corners on the sides of the rooms, does it not, and remains there unless removed?

A. Yes, sir.

Q. You think that a system of watering the working places, the sides of the rooms and pavements, shortly before shooting in the morning, would lessen the danger?

A. I do.

Q. About how far back from the face would this watering have to be done?

A. It should be done out of the range of all shots. I would say a hundred feet back from the face.

By District Inspector LaRue: Q. When did you begin your examinations here?

A. I think it was on the morning of the 8th.

By Mr. Alexander: Q. Any process that you have of watering the mines will not entirely do away with the dust, will it?

- A. While the mine is in operation there would be some little dust in suspension in the air while the men were working.
- Q. What company operates the New England mine?
- A. The Fairmont Coal Company, I understand
- 

Next came JOHN PHILLIPS who being first sworn testified as follows:

### Testimony of John Phillips.

Examination by Mine Inspector Paul:

- Q. Where do you live?
- A. McMechen, West Virginia.
- Q. What is your occupation?
- A. District state mine inspector.
- Q. What has been your experience in connection with coal mines?
- A. Forty years.
- Q. Where have you been connected with coal mines?
- A. In Pennsylvania, West Virginia, New Mexico and Indian Territory.
- Q. Have you worked in mines in which gas was liberated?
- A. Yes, sir.
- Q. Dangerously?
- A. Yes, sir.
- Q. Have you visited mines other than the Monongah mines in which there have been explosions?
- A. I have; the last one was the Harwick, at Johnstown, Pennsylvania.
- Q. Have you been through these Monongah mines since the explosion?
- A. Yes, sir.
- Q. Did you assist in restoring the ventilation?
- A. Yes, sir.
- Q. Did you discover the presence of any gas?
- A. I did.
- Q. Have you been to those places where ventilation has been established?
- A. Some of them.
- Q. Did you find any evidence of gas there?
- A. Traces in some points but not in all.
- Q. In your judgment did gas play an important part in the explosion?
- A. Not being acquainted with the mines, previously, I would hardly be able to determine that.
- Q. I believe you expressed yourself in your report that coal dust was the most important factor?
- A. Yes, sir.
- Q. In what way is a coal dust explosion carried from one part of a mine to another?
- A. Generally by a blowout shot.
- Q. Do you mean by that that that would be the cause of its origin.
- A. Yes, sir.
- Q. How would it be propagated or carried through the mine from one point to another?
- A. By coming in contact with the different noxious fumes.
- Q. Would the coal dust along the ribs and on the pavements facilitate the carrying of the explosion from one part of the mine to another?
- A. Yes, sir.
- Q. Was it your observation that there was more evidence of heat in the rooms than in the entries?
- A. I rather think so; I rather think there was at some point.
- Q. What might be considered a practically safe way of wetting mines?
- A. Practically the safe way to wet mines would be to pipe the mines.

Q. Do you think the loading of coal cuttings in cars is the best method before the same have been wet?

A. I think it ought to be wet and then loaded into the cars.

Q. Do you know of any place where they have adopted a system of pipe?

A. I know where they are adopting it; yes, sir.

By District Inspector LaRue: Q. When did you first enter No. 6 mine?

A. On the 19th, I think.

By Mr. Alexander: Q. In these rooms at Monongah there is about three-fourths of a car of the machine cuttings?

A. Yes, sir.

Q. Give the jury about how many gallons of water it would take to wet these undercuttings?

A. To wet them properly probably 120 gallons.

Q. In your district how many miners working in the mines do you have?

A. About 1800 to 2000.

Q. Many of the districts have many more men than that, haven't they?

A. Likely they have.

Q. What in your judgment are the number of miners employed underground that each district state mine inspector can properly look after?

A. It would depend on the number and size of the mines. If they were close together and large, he might be able to look after five hundred more than if he would have to travel thirty or forty or fifty miles to reach the mines.

Q. About what would be the average.

A. About twelve hundred.

By Mine Inspector Paul: Q. Did you join in making a joint report in relation to this explosion?

A. Yes, sir.

Q. Examine this paper and see if it is your report?

[Paper marked "Byrne C" is here handed to witness.]

A. Yes, sir; it is.

Q. Do you still concur in that opinion as expressed in that report?

A. I do.

Next came D. R. PHILLIPS who being first duly sworn testified as follows:

### Testimony of D. R. Phillips.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Bramwell.

Q. What is your occupation?

A. District state mine inspector of District No. 10.

Q. What has been your experience in coal mines?

A. Thirty-seven years.

Q. In what capacity have you served?

A. In all capacities—mine foreman and superintendent.

Q. In what localities have you worked?

A. In the bituminous regions of Pennsylvania, Ohio and West Virginia.

Q. What was your occupation just prior to becoming a district mine inspector?

A. Superintendent of the Thomas plant, Tucker county.

Q. Have you had experience in mines in which there had been explosions?

A. Yes, sir.

Q. What was the cause of those explosions—dust or gas?

A. All gas.

Q. Were you in the Monongah mines No. 6 and No. 8 prior to the explosion?

A. No, sir.

Q. Have you been in them since?

A. Yes, sir.



Q. Did you make an examination of the mines with the view of arriving at the cause of the explosion?

A. Yes, sir.

Q. Did you join in making a joint report with other of the district mine inspectors as to that explosion?

A. Yes, sir.

Q. Examine this paper and state whether or not it is a copy of your report? [Here paper marked "Byrne C" is handed to witness.]

A. Yes, sir; it is.

Q. Do you still concur in the opinion as expressed in this report?

A. Yes, sir; I do.

Q. Was the dust that might have been on the pavements or ribs an important factor in propagating the explosion?

A. I think so; yes, sir.

Q. What will a blown out shot do to any dust that may be suspended in the air?

A. Ignite it if it is a dust that contains hydro-carbon.

Q. Is there more or less of that dust throughout the mines?

A. Yes, sir; at all times.

Q. What effect would wetting the roof and pavements and ribs of a mine have by way of retarding the explosion?

A. It would prevent the dust from rising and becoming in a state of suspension.

Q. Is this report you make your own judgment in every respect or were you influenced in any way by any one in making it?

A. No, sir; it is my own judgment in every way and I was not influenced by any one.

Q. About how many mines do you have in your district?

A. Forty-four.

Q. About how many men are employed in the mines?

A. I judge four to five thousand.

Q. Do you think a district mine inspector can do justice to the State, to the employers and to himself, by having such a large number of men to look after?

A. No, sir; I do not.

Q. What would be a conservative number of working places and number of men?

A. It would depend largely upon the number of men to be employed in any one mine. There are mines that are almost inaccessible; I mean that it takes a great deal of time to visit a small mine and the districts should be laid off with a view to the number of mines and the amount of travel you have to make in reaching them. I think probably 2000 miners.

By District Inspector LaRue: Q. When did you begin your investigation of these two mines?

A. I think the first on the 14th of December.

By Prosecuting Attorney Lowe: Q. Is the use of electric machines an absolute necessity in the mining of coal?

A. At the present date I think they are.

Q. That work was formerly done by pick work?

A. Yes, sir.

Q. And that didn't create as much coal dust as the machines?

A. No, sir; not the same character of dust.

Next came WILLIAM WARNER, who being first sworn, testified as follows:

### Testimony of William Warner.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Welch, McDowell county.

Q. What is your occupation?

A. District state mine inspector for West Virginia.

Q. Do you hold your position by reason of appointment by the Governor?

A. I do.

Q. What has been your mining experience?

A. I never did anything else in my life?

Q. Have you been mine foreman and mine superintendent?

A. Yes, sir.

Q. Have you been in mines in which there have been explosions?

A. Yes, sir.

Q. Have these explosions been due to gas or dust, or both?

A. I have seen explosion which I believe were created by gas and others which I believe were created by dust.

Q. Have you visited the Monongah mines No. 6 and No. 8 since the explosion, with the view of determining the cause of the explosion?

A. I have.

Q. Did you join in making a report with others of the district mine inspectors?

A. Yes, sir.

Q. Look at this paper and state if this is your report.

[Paper marked "Byrne C" here handed to witness.]

A. It is.

Q. Do you still concur in the opinions embraced in that report?

A. Yes, sir.

Q. What might be considered an efficient and practical way of protection against dust explosions in mines?

A. I believe to keep an accumulated dust out of the mine by loading it out, cleaning it up, and keeping it well watered—not only the bottom and sides but the roof, especially in the old workings and entries; in other words, every where where it might be dry and dust might accumulate.

Q. Have you any way of determining after explosions approximately the amount of dust that might be in a mine prior to an explosion?

A. I never tried it; I always thought it sufficient to know that a mine was dry and dusty.

Q. What effect does a blowout shot have on the temperature of a mine, especially the working places that might be dusty?

A. It is very likely to have such force as to raise the small particles of dust that might be lying around dry—raise the dust in the air and inflame it. A blowout shot would ignite the dust and more than likely you would have an explosion and the explosion would depend on the elements of combustion present.

Q. Would a hole that had been tamped with fine coal dust and blowout be a source of any greater danger than if tamped with other and wet material?

A. It certainly would, and no hole should be tamped that way.

Q. What might be considered a practical way or method of watering mines?

A. I would feel that we should at least have the water distributed around through the working places where the mining of coal is done, especially before shots are fired. Shots should not be fired in dry places. I attach also a great deal of importance to watering the old workings and air courses. This, in my opinion, is where the fine particles of dust are lying waiting to be ignited. In order to do that we would have to have a car such as we observed a few days ago at the New England mine. A better way would be to pipe the mine and have sufficient hose to reach every spot in the mine where it might be dry, and such water cars are perfectly practical if you have the electric power, so as to connect the pump with the electric power.

Q. What is your idea in regard to the use of black powder in the mines with the class of impractical miners that are found in most mines?

A. The use of black powder by inexperienced miners is, of course, more serious than when used by experienced miners, but I have come to the conclusion in my own opinion that black powder is best not to be used in mines that are dry and dusty by either experienced or inexperienced miners.

By District Inspector LaRue: Q. When did you begin your examination of these mines?

A. I entered the No. 8 mine the Sunday afternoon after the explosion. I just observed such conditions as we came in contact with.

Q. When did you enter No. 6 mine.

A. I don't just remember the day, but it was quite a while after we examined No. 8.

By Prosecuting Attorney Lowe: Q. You were there in company with other parties when the inspectors made their investigation of these two mines?

A. Yes, sir.

Q. And after the conclusion of that investigation the district inspectors—being required by law to make reports—made up and joined in this joint report?

A. Yes, sir.

Q. Were you, or as far as you know, any of the other district mine inspectors, influenced in any way by any one in signing or making up this report?

A. No, sir.

Q. That report was made up before this investigation began?

A. Yes, sir.

An adjournment was here had until Monday morning, January 13th, at 9:30 o'clock.

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### JANUARY 13TH—MORNING SESSION.

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Next came R. T. CUNNINGHAM, who being first sworn, testified as follows:

### Testimony of R. T. Cunningham.

Examination by Prosecuting Attorney Lowe:

Q. What position do you hold?

A. Auditor of the Fairmont Coal Company.

Q. Was there a census taken of those persons who were supposed to be in the mines on the morning of this explosion?

A. Yes, sir.

Q. Who was in charge of that?

A. I had charge of it.

Q. Tell the jury what plan you followed?

A. We organized four or five parties with a competent man in charge of each party, and an interpreter. We visited every house; spent four or five days at it. We first took the houses that were on the map, using the map to show the location. A book was carried and a record of each man taken on a separate page—the records of those who were missing. We got this information from the women. Some of the women kept boarders and they would give the names of any boarders that were missing, or of their husbands, if they were missing. That book was checked up by the company's records, and also verified by the pay roll. We found a difficulty sometimes in listing the foreigners' names, on account of a similarity in the names, but in nearly every instance we were able to properly list them. When we had completed the local settlement we went out around the country; in this we had the assistance of the postoffice department and rural mail carriers. If they ran down the names of any who were reported missing four or five miles out they would report that. Every rumor we could find we ran down and made every effort we could to find out who was missing. The list now shows 352, as three more bodies have been brought out since the report was made.

Q. What was the result of the record taken, or the census, in regard to the total number of men supposed to be in the mines that morning?

A. The list now shows 352. At the time it was finished it was 347. I have added three men who have been reported since. One man lived in Fairmont and

was down there that morning looking for work, and he was found in the mine and identified. We did not have him on the list but we have him now.

Q. The scope of the work was sufficient to ascertain the number of the men who were in the mine? That was the object?

A. That was the object, and we did everything we could—everything we knew to do. We kept it up until we ran down every possible case. That was kept checked against the morgue record.

Q. Have you any information of any other men being in the mine that morning than those shown on the record?

A. That is all. Those found since are now on the record.

Q. Placed there as they have been found?

A. Yes, sir; three more were found who were unidentified.

Q. Does your list show the same names as the morgue record?

A. Not always; not spelled the same; that is, among the foreigners. The others are the same.

Q. Will you file a copy of the list of names ascertained by you as a part of your evidence?

A. If required; yes.

[Here witness files as part of his testimony a correct copy of the list above referred to, marked Exhibit "Cunningham No. 1," which is as follows:]

#### EXHIBIT "CUNNINGHAM NO. 1."

The annexed list shows from the best information obtainable from house to house census and information from all other sources a correct list of men reported to have lost their lives in the disaster at Monongah mines, No. 6 and No. 8, December 6th,

FAIRMONT, W. VA., JANUARY 13th, 1908.

#### MINE NO. 6.

List of men who lost their lives in mine No. 6 of the Fairmont Coal Company in explosion at Monongah, W. Va., December 6th, 1907.

#### As designated on Pay Roll.

Alesandra, Joe.....	Alexander, Joe .....	Italian
Abate, Frank .....	Abbatta, Frank .....	Italian
Adoccha, Patsy .....	Toots, Patsy .....	Italian
Adoccha, Ang. ....	Toots, Ang. ....	Italian
Adoccha, Tony .....	Touch, Tony .....	Italian
Abruzzno, Frank .....	Abruzzino, Frank .....	Italian
Abzte, Joe .....	Abatta, Joe .....	Italian
Abate, Carlo .....	Abatta, Carl .....	Italian
Basilla, Salvare .....	.....	Italian
Bonacci, Jno. ....	Bonasa, Jno. ....	Italian
Brand, Adolf .....	.....	Italian
Basilla, Jno. ....	Basile, Jno. ....	Italian
Basilla, Sam .....	Basile, Sam .....	Italian
Balcasca, Joe .....	Baleaster, Joe .....	Italian
Balcasca, Saraf .....	Balcaster, Sam .....	Italian
Bosner, Martin .....	.....	Slav
Banacky, Mike .....	Bonotsky, Mike .....	Slav
Born, Andy .....	Borrough, Andy .....	Slav
Born, Geo. ....	Borrough, Geo. ....	Slav
Bitonti, Tony .....	Beton, Tony .....	Italian
Basile, Frank .....	Basile, Frank .....	Italian
Bassamo, Geo. ....	Boshoff, Geo. ....	Pole

As designated on  
Pay Roll.

Burk, Henry		American
Begala, Jos.	Vagola, Joe	Slav
Baganoli, Ang		Italian
Belo, Mike		Slav
Cerimonta, Rafa	Couch, Ralf	Italian
Cooper, Fay		American
Cooper, Fred		American
Cavallaro, Vincen	Correlli, Joe	Italian
Clemme, Dom	Cemino, Dom	Italian
Connia, Franc	Connie, Frank	Italian
Connia, John		Italian
Donko, Mike		Slav
Donko, John		Slav
Davia, Victor		Slav
Duretz, Jno.	Durse, Jno.	Slav
Dutko, Frank	Dutka, F.	Lithuanian
Durkata, Mike	Derkuta, Mike	Slav
Deprospero, Tony	Prosper, Tony	Italian
Desalvo, Gecchno		Italian
Davis, Frank		Pole
Davis, G. C.		American
Donlin, Thos.		American
Duffy, Thos.		American
Deplacito, Nick		Italian
Duvall, Thos.		Slav
Egel, Mike		Slav
Evans, Wm.		American
Evans, Harry		American
Faglia, Tony	Folio, Tony	Italian
Foltin, Joe		Slav
Ferfole, Loui	Faluke, Loui	Italian
Ferraro, Joe	Ferrare, Joe	Italian
Fluharty, Jabe		American
Frank, Paul		Slav
Frank, Tony		Italian
Ford, Floyd		American
Feet, Steve		Slav
Gomercha, Jno.	Gomerchec, Jno	Slav
Garrasto, Frank		Italian
Gesego, Felix	Gasgo, Felix	Pole
Gallo, Tony	Gall, Tony	Italian
Gott, Ignof	Goff, Ignof	Pole
George, Albert		Pole
Hamas, Mike	Mamish, Mike	Slav
Honick, Martin		Slav
Honick, Paul		Slav
Hernock, Jno.		Slav
Hamecek, Wojtech		Slav
Herman, Jno.		American
Hinerman, Loumie		American
Hiner, Jno.		Slav
Ignacek, Steve	Ignatchic, Steve	Slav
Iannacono, Jno.		Italian
Jajos, Paul	Prointsky, Paul	Italian
Krul, Fred	Krall, Frank	Pole
Kristoftz, Jno.		Slav
Krisko, Jno.	Cresko, Jno.	Slav
Osvay, Mike	Oshwie, Mike	Slav
Olivette, Tony		Italian

As designated on  
Pay Roll.

Orse, Janaway	Italian
Perochchi, Nick	Italian
Provingano, Pete	Italian
Palinkis, Jno.	Hungarian
Porboncaek, Jno.	Polonchee, Jno. Slav
Perri, Tom	Perro, Don Italian
Perrelotte, Fred	Italian
Pyles, Homer	American
Rizzo, Mike	Ritz, Mike Italian
Rogers, Fred	American
Riccinto, Patsi	Richwood, Patsy Italian
Riccinto, Tony	Richwood, Tony Italian
Riccinto, Dominic	Richwood, Don Italian
Rosa, Peter	Rosia, Petro Italian
Regulski, Jan	Regulski, John Pole
Shusta, Nick	Greek
Stie, Andy, Sr.	Slav
Stie, Andy, Jr.	Slav
Sabok, Mike	Sebec, Mike Slav
Stofira, Geo.	Strafere, Geo. Slav
Sari, Mike	Slav
Sari, Geo.	Slav
Sari, John	Slav
Sari, Steve	Slav
Shroyer, Frank	American
Sloan, Scott	American
Synosky, Tom	Susnofsky Tom Pole
Sillata, Tony	Selet, Tony Italian
Scalles, Louvi	Scholese, Louie Italian
Salvatore, Mero	Salva, Motz Italian
Sonick, Frank	Srautch, Frank Pole
Scoua, Frank	Sawyer, Frank Pole
Stealy, Will	American
Seyche, Thos.	Slav
Sotta, Nick	Greek
Toth, Jos.	Hungarian
Trader, Harold	American
Trusovite, John	Pole
Totare, Frank	Tallaria, Frank Italian
Thompson, Sam	American
Toreze, Nick	Greek
Tereza, Andy	Greek
Veltz, Lowardo	Dewett, Lunard Italian
Vaszil, Mikin	Wassle, Mike Slav
Varga, Paul	Frank, Paul Slav
Virgilitta, Tony	Virgelet, Tony Italian
Virgilitta, Patsy	Virgelate, Patsy Italian
Watkins, Milroy	American
Willey, Geo.	American
Walls, Wm.	American
Wise, Chas. E.	American
Watkins, J. A.	American
Wattah, Mike	Slav
Zahoreak, Geo., Sr.	Slav
Zahoreak, Geo., Jr.	Slav
Zubko, Mike	Slav
Zubko, Thos.	Zinnis, Thos. Lithuanian

## FAIRMONT, W. VA., JANUARY 13th, 1908.

## MINE NO. 8.

List of men who lost their lives in mine No. 8 in the Fairmont Coal Company, at Monongah, W. Va., in explosion, December 6, 1907.

As designated on

Pay Roll.

Alesandra, Patsy	Alexander, Patsy	Italian
Augustine, Patsy		Italian
Attusi, Vantore	Darso, Vinture	Italian
Angello, Tony		Italian
Ancello, Bacbiase	Auchilla, Beat	Italian
Avicello, Paola	Auchilla, Paul	Italian
Avicello, Colestino		Italian
Ancello, Dominic	Anchillo, Dom	Italian
Bice, Carl		American
Bartalma, Climenta	Bebartonia, Clem	Italian
Bartalma, Dominic	Bebartonia, Dom	Italian
Bice, W. H.		American
Borze, Thos.	Bolza, Thos.	Italian
Bueshton, Alex	Bushtine, Alex.	Slav
Berrarda, Phelix	Berrard, Phelix	Italian
Betonti, Ross	Beton, Ross	Italian
Bonordi, Juste		Italian
Bonordi, Jim		Italian
Barrarda, Angello	Barrard, Ang	Italian
Barrarda, Jacinto	Barard, Jose	Italian
Bolinski, Mike		Russian Pole
Cievak, Paul	Chweswook, Paul	Slav
Charlton, Robert		American
Cox, Wm. R.		American
Collata, Nick	Colleat, Nick	Italian
Conerga, Tony		Italian
Colarusso, Dominic	Colross, Dom	Italian
Colociello, Nick	Colcheri, Nick	Italian
Colociello, Jos.	Colcheri, Joe	Italian
Ciampietello, Jno.	Metill, Jno.	Italian
Ciampietello, Nick	Metill, Nick	Italian
Colarsessaceo, Felice	Colasena, Dom	Italian
Colaruso, Joe	Colross, Joe	Italian
Colanero, Felix		Italian
Coceghi, Raefela		Italian
Dnadrill (DeAndra), Victor		Italian
Dankozcik, Geo.		Slav
Dimario, Louvi	Demarko, Louis	Italian
Dealesanto, Tony	Alexander, Tony	Italian
Desalvo, Felix		Italian
Desalvo, Vincin	Salva, Vinet	Italian
Deleal, Pasqueal		Italian
Defleus, Tony		Italian
Defleus, Mike		Italian
Dles, John	Dills, John	Italian
Demarco, Joe	Demark, Joe	Italian
Demarco, Ombarto	Demark, Albert	Italian
Depetris, Felix		Italian
Desalvo, Flora	Salva, Flora	Italian
Desalvo, Joe	Salva, Joe	Italian
Desalvo, Palestino	Desalvo, Chas.	Italian
Desalvo, Angello		Italian

As designated on  
Pay Roll.

Domico, Mike	Italian
Domico, Donatto, Jr.	Italian
Demaria, Joe	Italian
Dua, Jos.	Dewey, Joe
Dimaria, Sebastian	Italian
Dimaria, Sebastian	Italian
Dua, Mike	Dewey, Mike
Demaria, Angello	Italian
Demaria, Mike	Italian
Dissarvo, Vitale	Salva, Vint
Desibo, Tony	Desalva, Tony
Dissarvo, Dominick	Desalvo, Dominic
Farmer, Richard	Colored
Farmer, Chas.	Colored
Ferrare, Carmen	Italian
Ferrare, Matta	Italian
Fletcher, James	American
Frabiadolo, Peter	Fabachase, Peter
Fellen, Armando	Fevel, Louis
Goff, Paul	Slav
Garuk, Andy	Gerlock, Andy
Gannon, Thos.	Pole
Gioia, Peter	Joy, Peter
Gioia, Frank	Joy, Frank
Gia, Antonia	Joy, Antonia
Goff, Jno.	Slav
Herndon, F. V.	American
Herlick, Geo.	American
Highland, Pat	American
Halm, J. W.	American
Harris, Geo.	Colored
Honaker, C. A., Jr.	American
Hawatin, Anton	Slav
Inveor, Prospera	Italian
Imnat, John	Ignot, Jno.
Ianero, Jenero	Yanero, Jose
Ianero, Joe	Yanero, Joe
Jonakin, Calvin	Colored
Joiner, Golbert	Colored
Jacobl, Jim	Italian
Jones, John	American
Malleen, Thos.	American
Kiviatkowski, Josav	Keatsky, Joe
Kowalski, Wadislav	Kawalski, Vadis
Kinguris, Geo.	Kingersus, Geo.
Kinguris, Mike	Kingersus, Mike
Kerns, P. J.	American
Kroll, Geo.	Slav
Kovalic, Jno.	Kowalish, Jno.
Karus, Jacob	Kores, Jacob
Kasich, Mike	Cosis, Mike
Kreger, Frank	Slav
Lore, Frank	Loria, Frank
Laughney, Pat	American
Loma, Frank	Loman, Frank
Lombardo, John	Lombard, Jno.
Lane, Adam	American
Luba, John	Luber, John
	Slav



As designated on  
Pay Roll.

Moore, L. L.	American
Martin, Scott	American
McGraw, John T.	American
Masch, D. C.	Italian
Nefic, Frank	Italian
Miller, Charlie	Pole
Marcel, Michotka	Pole
McQueen, Mac	Colored
Mort, J. H.	American
Mort, C. D.	American
Morris, William	American
Morris, C. E.	American
Manza, Dan	Italian
Meffe, Carlo	Italian
Marcella, Peter	Italian
Maselle, Felix	Italian
Marionette, Joe	Italian
Manze, Dominick	Italian
Manze, Tony	Italian
Mastrotietro, Mike	Italian
Metill, Bibratro	Italian
Mainelli, Dom	Italian
Mayo, Cosmo	Italian
McKane, Chas.	American
Manzo, Miche	Italian
Morris, Marion	American
Noland, Sam	American
Novinsky, Victor	Pole
Perkins, W. M.	Colored
Porzillo, Frank	Italian
Pasqual, Tony	Italian
Pigualli, Saverio	Italian
Prigulatta, Pete	Italian
Pallella, Giagutto	Italian
Pallella, Basile	Italian
Priotella, Frank	Italian
Prelletto, Jno.	Italian
Preston, John	Colored
Ryalls, K. D.	Colored
Ringer, John	American
Ronaldo, Ralph	Italian
Ronoldo, J.	Italian
Rebich, Jno.	Slav
Riggin, David	American
Ringler, T. O.	American
Reese, Hugh	American
Rinaldo, Tony	Italian
Ross, Nick	Italian
Smaiska, Jno.	Pole
Soles, Michael	American
Stahlski, Joe	Pole
Spragg, Leslie	American
Smith, Dominick	Italian
Severe, Jose	American
Snodgrass, Geo.	American
Smaiska, Jno., Jr.	Pole
Snodgrass, F. E.	American
Severe, Beth	American

As designated on  
Pay Roll.

Simpson, Frank .....	American
Sarrafino, Jos. .... Sarafino, Joe .....	Italian
Santee, D. V. ....	American
Solon, Dennis .....	American
Seese, Harry .....	American
Stampian, Thos. .... Stephen, Tom .....	Pole
Torrisa, Jno. ....	Italian
Tomko, Jno. ....	Slav
Tomko, Geo. ....	Slav
Urban, Stanley .....	Pole
Urovich, Anton .....	Pole
Vendetta, Frank .....	Italian
Vendetta, John .....	Italian
Watkins, Jesse .....	Colored
Young, Harry .....	Colored
Zeole, Carmeno .... Zollo, Carl .....	Italian
Zeloe, Sebastian .....	Italian

The examination of Mr. Cunningham was here resumed and the witness testified as follows:

By Mr. Alexander: Q. In all instances where the names are not spelled alike on your list and the morgue record, is there a similarity of names?

A. Yes, sir.

By Mine Inspector Paul: Q. Have you any way of ascertaining whether or not one Calipel, a Frenchman, was in the employ of the Fairmont Coal Company at the time of the explosion?

A. Yes; if we had him in our employ I could ascertain that.

Q. Can you find from your record as to whether or not he was included in the census?

A. If his name appears there, yes.

[Note: After leaving the witness stand Mr. Cunningham reported that he had made a careful examination of the records and found that the man named Calipel was not employed by the Fairmont Coal Company in Monongah mines No. 6 or No. 8 or in any other mine in this region belonging to said company.]

Next came P. A. GRADY, who being first sworn, testified as follows:

### Testimony of P. A. Grady.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Williamson.

Q. What is your occupation?

A. Mine inspector for the Twelfth district.

Q. What has been your experience in coal mines?

A. I started as a trapper boy, and have been a driver, track layer, coal miner, fire boss, mine boss, and I have done mining engineering.

Q. Have you ever visited mines in which explosions have occurred?

A. Yes, sir; after the explosions.

Q. When did you first visit Monongah No. 6 and No. 8?

A. The Sunday night after the explosion.

Q. Have you gone through that mine with the view of making an examination to enable you to arrive at the cause of the explosion?

A. Yes, sir.

Q. Did you join in making a report embodying your ideas?

A. Yes, sir; I joined in making a report with the most of the other mine inspectors.

Q. Will you examine this report and state if that is the report you made?

[Here witness is handed report heretofore filed as Exhibit "Byrne C".]

A. Yes, sir.

Q. Have you obtained any additional information since making that report to cause you to change it?

A. No, sir.

By District Inspector LaRue: Q. When did you begin your inspection?

A. The Sunday night after the explosion, about 9 o'clock. We entered No. 6 mine with you.

Q. You began your inspection at that time as to determining the cause of the explosion?

A. Partly for that and also for the purpose of recovering the bodies.

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Next came J. F. BRATT, who being first sworn, testified as follows:

### Testimony of J. F. Bratt.

Examination by Mine Inspector Paul:

Q. Where do you live?

A. Preston county.

Q. What is your occupation?

A. Mine inspector of the Third district.

Q. What has been your experience in coal mining?

A. I have had about forty-five years practical experience.

Q. Have you worked in mines that have gas in them?

A. Yes, sir; I had charge of mines that generated gas.

Q. Have you ever been in mines where there have been explosions?

A. Yes, sir.

Q. What positions have you occupied in connection with mining?

A. I have been mine boss in a number of mines and I have worked as a coal miner.

Q. Have you ever been superintendent of mines?

A. Yes, sir.

Q. Prior to the explosion in No. 6 and No. 8 mines at Monongah had you ever been in those mines?

A. No, sir.

Q. Have you been in those mines since?

A. Yes, sir.

Q. Did you make an examination of those mines with the view of determining the cause of the explosion?

A. Yes, sir.

Q. Did you make a report of your findings?

A. Yes, sir; I made a brief report as to the cause of the explosion, to the best of my judgment.

Q. State if this is the report you made.

[Here witness is handed report.]

A. Yes, sir.

[Here the report above mentioned is filed as exhibit "Bratt Report" and the same is read to the jury, being in words and figures as follows:]

Independence, Preston Co., Jan. 3, 1908.

Hon. J. W. Paul,

Chief of Department of Mines,

Charleston, W. Va.

Dear Sir:

I herewith submit to you my report of the disastrous explosion that occurred in the Monongah mines No. 6 and No. 8, on the 6th day of December, 1907, about 10:30 a. m. In my judgment this was a dust explosion with some gas and powder which added to its force as the explosion proceeded through the mines. It is my opinion the cause of the explosion was a trip of loaded cars broke loose from the

rope as they were being drawn out of No. 6 slope mine and when near the top of the slope the coupling pin broke and let the entire trip of cars run back down the slope and wrecked at the bottom of the slope, thereby causing an immense cloud of very fine dry coal dust in suspension which was exploded either by open lights or an electric flame produced by a short circuit of the electric wires; I am inclined to believe it was the latter, and from the bottom of No. 6 slope it continued down the main head ways and spread through the headings on the left of the main and in the direction of F face heading. Also, down the main heading to F face heading and spread through all the butt headings on E face with the force in the direction of No. 4 north face heading, as is evidenced by the overcast being blown up the butt heading in the direction of No. 4 north face heading. Also, overcast in heading to the left of the main heading was blown in and in the direction of F face heading. The explosion continued up F face and into air course of No. 3 left heading off No. 2 north heading in No. 8 mine. The brattices in this air course were blown in toward the loaded track. In my judgment there was some gas in some of the rooms of the headings at the time of the explosion. The explosion gathered force all along its course from the bottom of No. 6 slope and when it reached the third left off second north heading No. 8 mine almost instantly became a mass of explosion and would naturally seek the line of least resistance which was out the opening of No. 8, and out of the several holes fallen through the surface in No. 8, and at that instant a very small part of the explosion returned down F face towards No. 6 and went out of No. 6 opening. It is evident that the part of the explosion returned down F face heading last. There must have been several hundred pounds of powder exploded which would add force to the explosion, but owing to the most excellent ventilation that I have reasons to believe was maintained in these mines I do not think there was any great quantity of gas present at the time the explosion occurred. This was simply a dust explosion, and a similar calamity is liable to occur in the future if the dust is not properly taken care of.

Very truly yours,

JOHN F. BRATT,

Mine Inspector of the Third District.

By Mine Inspector Paul: Q. You still confirm the contents of that report?

A. Yes; that is my judgment.

By District Mine Inspector LaRue: Q. Under the conditions that were produced at the foot of No. 6 slope from that runaway trip, could an explosion have been prevented?

A. I think it was impossible to prevent an explosion under the conditions that existed at that time.

By Prosecuting Attorney Lowe: Q. You speak of these accidents continuing unless the dust is properly taken care of. What are your ideas as to taking care of the dust?

A. I think the only remedy I know of is to keep it thoroughly wet.

Q. Do you think there would have been anything more than a local explosion when that trip was wrecked at the bottom of the slope if the dust had been properly wet throughout the mine?

A. I think not.

By Mr. Alexander: Q. How would you go about wetting this dust?

A. The only way I would know of would be to have the mine installed with pipe—not only the main headings but the air-courses—and to have a pump to force the water through, and have valves on this pipe every hundred feet, and have a hose attached to the valves fifty feet long, and water one hundred feet each way, and have a regular system of watering; not do it spasmodically, but have a regular system.

Q. Is it your idea that the undercuttings—after a machine has made a cutting—should be watered before they are loaded or before a shot is made?

A. It would be better; yes.

Q. About how much water, in your opinion, would it take to water the undercuttings?

A. I could not say; I have no idea.

Q. Is it not a difficult thing to water the dust?

- A. Yes, sir; it is.  
 Q. It will hardly mix with the water, will it?  
 A. No, you pour water on the cuttings and it forms a kind of crust unless you stir it up.  
 Q. Do any mines in your district have this system of watering?  
 A. No, sir.  
 By District Inspector LaRue: Q. Do I understand from your report that you discovered any evidence of fire at or near the bottom of No. 6 slope?  
 A. It is not in my report, but I did discover evidence of fire a little beyond there.  
 Q. There were evidences of fire from that point inward?  
 A. Yes, sir.

Next came R. S. LaRUE, who being first sworn, testified as follows:

### Testimony of R. S. LaRue.

Examination by Mine Inspector Paul:

- Q. Where do you live?  
 A. My home is at Morgantown.  
 Q. What is your occupation?  
 A. Mine inspector for the first district of this state.  
 Q. How long have you been a mine inspector?  
 A. Since the first of last July.  
 Q. What has been your previous experience in mining?  
 A. I have had nearly forty years experience—forty years next month.  
 Q. What territory does your district cover?  
 A. All the counties from here to the upper end of the state; eight counties including this one; one hundred and sixty miles.  
 Q. How many mines in your district?  
 A. Fifty mines.  
 Q. How many men are employed in those mines?  
 A. Four thousand. The capacity of the mines is seven thousand, but they are not all filled. I have a very hard district to get over after I leave this county.  
 Q. Are the Monongah mines No. 6 and No. 8 in your district?  
 A. Yes, sir.  
 Q. When did you first visit these mines after being made mine inspector?  
 A. I think the first visit was the 12th of July. I did not get my supplies until about that time. My first inspection was at Hutchinson.  
 Q. I hand you here a certificate of the No. 8 mine. Will you examine it and state if you made that report?  
 A. Yes; that is my certificate.  
 Q. Will you please read it to the jury?  
 [Here witness reads to the jury the certificate heretofore introduced with the evidence of Mr. Gaskill and copied as "Gaskill No. 3."]  
 Q. Will you examine this certificate and state if you issued that certificate on No. 6 mine?  
 A. Yes, sir.  
 Q. Will you read this to the jury?  
 [Here witness reads certificate marked "No. 6" to the jury, the same being as follows:]

#### "CERTIFICATE OF MINE INSPECTION, STATE OF WEST VIRGINIA.

No. 8.

Monongah, W. Va., July 20, 1907.

#### TO FAIRMONT COAL COMPANY.

Sirs:—On the 19 and 20 days of July, 1907, I inspected your Monongah mines in Marion county and found it to be in the following condition:

1. As to ventilation: good.
2. As to drainage: good.
3. As to timbering: good.

4. As to machinery: good.
5. As to gasses: clear.
6. As to oil used: good.
7. As to general safety: good.

Very respectfully,

R. S. LARUE,

*Mine Inspector First District.*

All my reports I furnished to Mr. Gaskill. You will find two reports alike.

Q. Examine this certificate and state if it is your report of mine No. 8?

[Here witness is handed certificate heretofore filed and copied as "Exhibit Gaskill No. 2.7"]

A. This is my certificate.

Q. Will you please read it?

[The above certificate is here read to the jury.]

Q. I have here a certificate of inspection of No. 6 mine. State if that is your certificate and read it to the jury.

A. Yes, this is my report.

[Here witness reads certificate heretofore filed and copied as "Gaskill No. 1."]

Q. Look at this certificate and state if it is a copy of the certificate you have read dated July 22nd and 23rd, for No. 6 mine?

A. Yes, sir.

[Reference is had to certificate heretofore filed with testimony of J. C. Gaskill and marked "Gaskill No. 4."]

Q. Are these certificates for October 7th and 8th for No. 6 mine and September 27th and 28th for No. 8 mine the last official inspection made by you?

A. Yes, sir.

Q. How often are you required to visit and inspect these mines?

A. Four times a year.

Q. How carefully do you go through these mines with a view to determining the conditions?

A. My first inspection was not quite as careful as my last one. I found the mines in what I considered a good condition and I did not make a very minute examination on the first round. I was simply getting in touch with my work. I inspected them sufficiently to satisfy myself that they were in a thoroughly safe condition.

Q. How about your last inspection?

A. That was a careful inspection. I spent four days in the mine at that time.

Q. You speak of finding slight traces of gas in No. 6 mine in October. Where was that found?

A. I think in the air course in the lower right level of No. 6—a small trace of gas at the roof. That air-course seemed to be producing gas all the time, more or less; that's the only place I remember.

Q. I notice that these reports for September and October in No. 6 and No. 8 mine, respectively, state with reference to the coal dust "None."

A. Yes, sir.

Q. In what way was there an absence of coal dust?

A. There seemed to be moisture in the air like dew; everything seemed to be in a state of moisture. There was some slight signs of dust in one or two haulways, but I did not think it sufficient to mention it in my report; so I simply took it up with the mine foreman, in case the mine became dry before my return. I did not consider it in a dangerous condition.

Q. What has been your observation throughout your district since the change of weather has taken place?

A. I found some mines that seemed to be in a dangerous condition. I have had to stop mines at 9 o'clock in the morning and have the men ordered out and the mine watered. I stopped a mine on the Wabash a few days before I came here and started a system of watering, and I remained there until it was watered. When I came here I notified Mr. Tarleton that I would do the same thing here if I found it necessary. I found some of the mines in a dangerous condition after the cold weather began.

Q. You state that you have adopted a plan of insisting on a mine being watered if you find it dusty?

A. I insist on having the men come out at once until it is watered. This is the plan I adopted. That's what I would have done at No. 6 if I had reached there in time. I was due there the 6th, but I was delayed one day.

Q. Where were you the day of the explosion?

A. In the New England mines, in the interior.

Q. What time did you enter the Monongah mines after the explosion?

A. About twenty or thirty minutes after 12 o'clock. I went up on the 12 o'clock car and entered as soon as I could get there at No. 6. It was possibly 12:30.

Q. What did you observe in particular in No. 6 mine?

A. The first thing I observed was the wreck at the bottom of the slope—a trip of loaded cars. The first person I met was Mr. Gaskill, just this side of the wrecked trip. I asked where Mr. Victor was and he said he had gone inside. I asked him if I could get around and he said, "You can get over by climbing over the left hand side of the loaded track." I didn't know at that time that there had been a general explosion.

Q. Did you make any examination at that time of the bottom of the slope?

A. A few minutes afterward I did. When I first went in I didn't. I went to where Mr. Victor was as soon as I could, but I returned about thirty minutes afterwards and made an examination. I had a talk with Mr. Victor, however, before I returned. I noticed the condition of the standing trip as I went by.

Q. What did you learn from your examination?

A. I learned that that trip had wrecked at the bottom of the slope before the explosion occurred; I learned that there had been an explosion just beyond the wreckage; I learned there had been a force from that point inward to the face of No. 6—a destructive force; I also found three men lying dead inside the cabin there near the outer end of the wreck. Mr. Victor asked me if I had seen these men and I told him I did not take time to look at any dead persons. I made examination of these men, however, on my first visit back from beyond the wrecked trip.

Q. What was the condition at the bottom of the slope with reference to the presence of a quantity of coal dust?

A. Conditions were very bad and there was a great quantity of dust of a dry and compact nature—the worst I ever saw in a coal mine.

Q. Under the conditions produced by the runaway trip could an explosion have been prevented?

A. No, sir. It could have been prevented if there had been no wires or with a system of closed lamps, but under the conditions that existed it could not.

Q. What were the injuries to the men in the cabin? Were they burned?

A. I went in the cabin and examined them—not minutely, but I looked at them. I pulled off my glove and stroked the man that was sitting up to ascertain if there had been any fire in that region. When I opened the door I saw two men lying on the floor of the cabin. One man had his head from the door and his feet next to the door. It looked as though he had been trying to make his escape; he had entered the door and had fallen forward with his head under the bench. The other man lay on his back with his head toward the door, and there were no signs of any struggle. One man was sitting up. He had evidently been drinking coffee. His dinner bucket sat there with the coffee exposed. He had slipped off the bench and was sitting in this position. His mouth seemed to be full of coffee that remained until he was removed by the men. I examined this man's hair and it seemed to be full of dry coal dust, but by the use of my safety lamp I could not determine whether there had been any fire in the cabin. I said to myself "Here are the first three men that died in this disaster." I was so impressed that I could hardly stand up.

Q. What in your judgment, prevented any destruction of the No. 6 slope?

A. No. 6 was saved from the fact that the flame was destroyed in the interior. As the flame proceeded from the foot of the slope it was destroyed by the poisonous afterdamp that formed in the rear of the explosion. It returned from the interior

with great force, but void of any flame; otherwise the slope would have been destroyed. The flame was destroyed on the inward force.

Q. Do you think that explosion could be reproduced by a trip running into the mine again?

A. Yes; it could be produced any time such a thing happened. If any man doubts that I challenge him to test it. It would blow up today with a loaded trip running down that way, under the same conditions.

Q. Have you made a written report of your investigations?

A. I made a report to you of the accident and its cause; I have made no report of the general conditions to any one, neither verbal or written.

Q. Is this your report?

[Here witness is handed paper.]

A. Yes, sir.

Q. Will you file the report as part of your evidence?

A. Yes, sir.

[The report above mentioned is here filed as exhibit "LaRue Report" and read to the jury, it being as follows:]

#### DEPARTMENT OF MINES,

State of West Virginia.

R. S. LARUE, *Inspector, First District.*

Fairmont, January 4, 1908.

MR. J. W. PAUL,

Chief Mine Inspector,

Charleston, W. Va.

Dear Sir:—

I regret that it is necessary to report to you an accident which occurred in mines No. 6 and No. 8 at 10:30 A. M., December 6th, 1907, at Monongah, Marion County, West Virginia. In my opinion this accident was caused by sixteen, 19 loaded cars breaking loose at the top of the incline at mine No. 6 and running down a nine per cent grade into said mine, a distance of nearly one thousand feet. This trip of cars, which contained between forty and fifty tons of coal, jumped the track at the bottom of No. 6 slope completely wrecking all of the said 19 cars, closed up the entrance of mine No. 6 at the point of wreck and produced, in my opinion, not less than ten tons of coal dust which was ignited at this point by a short circuit in the electric current,—the system of electric wires being torn down at this place by the wreck. The explosion extended into the interior of the mines, causing the greatest mine disaster in the annals of American history, destroying all the lives in both mines except those of five men. The dead in my opinion will number 360 persons.

You will observe by examining the maps of these two mines that they are connected near their centers by three small openings, each covering the area of 70 feet.

You will also observe by my former reports to you of these two mines that they were in first class condition at the time of my inspection.

This accident has been caused by a violation of my orders, namely, that of not keeping a man at the throw-off switch at the mouth of the entrance of mine No. 6, and not keeping the coal dust properly watered down at the bottom of No. 6 slope and along the headings leading from this point into the interior of the mine.

There is nothing plainer in the history of mine explosions than the fact that the above mentioned wreck caused this great disaster.

In regard to the ventilation, there is about 90,000 cubic feet of air entering this slope per minute; the velocity is about 14,000 feet per minute.

Yours truly,

R. S. LARUE.

By Prosecuting Attorney Lowe: Q. Do you care to give your reasons for reaching the conclusions you have in regard to the start of that explosion?

A. No, sir.



Q. You might tell the jury what evidence you found that it did begin at that point.

A. I stated about entering the mine and meeting Mr. Gaskill and asking him how to get around the wreck, and he told me, "on the left hand of the loaded track." He said Mr. Victor had gone that way. I found room there for a man to get over the wreck. On my return to that place a few minutes afterwards I made an examination of the conditions existing there. I found that the last car next to the outside of the mine had been brought back by the force of the explosion. I also heard that the coal from that car had been carried outward a distance of perhaps twenty feet, and strung along past this shanty door, which was six or eight feet from the wreck, showing plainly that the wreck occurred before the force of the explosion reached that point; showing too, that this condition—the moving back of this car and closing up the entrance—had apparently been caused by the force of the explosion from the interior. These bodies of coal carried back that way show that it had been done by the force from the interior of the mine. This thoroughly settled the question as to whether that trip landed before the explosion reached that point. Then I examined the men in regard to fire, but I discovered no traces of fire in the cabin. I then examined beyond the wreck toward the interior and found evidences of fire there. I discovered that at different points,—the three intakes. I discovered the destruction had carried to the face of No. 6 the cars, motor, men and everything it came in contact with. For that reason I determined that this great disaster happened at that point and that point only. All the evidence in the mine points to that. The natural laws make it return to No. 8. The blowing out of the smoke at No. 6,—the last scene of the explosion—void of flame, is another of nature's laws that control these things. There is a law that points to nothing but the truth, and that points to this place only. I could not come on the stand here and say any thing else without perjuring myself; for that reason I have to stick to this point.

Q. Did you come to this conclusion as to the starting point before or after you made a thorough examination of both mines?

A. Before. After I made a thorough examination of that point I was more satisfied. I made an examination afterwards in company with Mr. Paul. We were a number of days making that examination. I was very anxious to find some other evidence, because there has been a reflection on me that has been very damaging and unjust.

Q. You mean after the explosion you and Mr. Paul made a thorough examination of all the mines?

A. Yes, sir.

Q. In that examination did you find any evidence that caused you to change your opinion as to the origin of this fire?

A. No, sir; my mind only became more clear. All the evidence in the mine points to that place.

Q. How far is that cabin, at the bottom of the slope, from where the trip was wrecked?

A. I would judge six to eight feet.

Q. Practically at the same place?

A. Yes, six or eight feet from the outer end of the wreck.

Q. The last car passed the cabin six or eight feet before the wreck?

A. Yes, sir.

Q. Not for the purpose of combating you, but for information: If it is true that the explosion did not occur until that trip was wrecked, how do you account for the fact that the men in that cabin had not gone out, or at least partly out? They could hear the noise?

A. I think so; I think that motorman who laid on his face had been making his escape.

Q. Would they not have heard the cars coming for a considerable distance up the slope?

A. If they had they would have remained in there; they would not have gone out in the way; they would not have had much time to do it. I think the man outside had barely made his escape in. I don't think he could have thought, and got in that position, if he could have been inside, at least struggling, and there

were no signs of any struggle. The position of the man drinking coffee shows he had no time for anything in my judgment.

Q. Do I understand that you attribute the origin of the explosion to the coal dust stirred up by the train?

A. Yes, sir.

Q. How do you account for its being ignited?

A. It was ignited from a short circuit, or it could have been ignited from an open lamp.

Q. Did you find any evidence in the electrical apparatus of a short circuit?

A. In my judgment, yes. I would not have stated so in my report if I had not.

Q. What was the evidence?

A. A blueish color on the wire,—something similar to powder—and a roughness at that point. I handled the wires with my gloves on, in the first place, and I wiped this deposit off with my glove. I did not make any minute examination further than to satisfy myself that that was what had happened.

Q. In your experience in mining have you noticed the result of short circuits?

A. Yes; I have seen explosions caused by them—been an eye witness.

Q. You think the evidences here discovered on the wire were sufficient indications of a short circuit?

A. I thought so at that time, yes.

By Mine Inspector Paul: Q. Did you discover some loaded trips standing on the track at the bottom of the slope?

A. Yes; two trips.

Q. How far back were they?

A. One was in connection with the rest: two of the cars were partly destroyed by the wreck.

Q. How many cars were there in those two trips?

A. I think twenty-seven or twenty-eight cars. There were ten cars and the motor on the hind trip. I am not positive about the other.

Q. Is it customary in the transportation of coal to carry a lighted torch on the rear of the trip?

A. Yes; those were my orders and I find them carried out.

Q. Do you think that lighted torch on the rear of the trip may have been incidental in causing the dirt to be stirred up and exploded, even in the absence of a short circuit?

A. Yes, sir.

Q. Did you find any evidence of excessive heat at the back end of the trip to indicate that there had been a local explosion?

A. No, sir.

Q. Did you discover any evidence back of the trip that there had been some heat?

A. Yes, sir. It is my judgment that there had been considerable heat prior to the return of that force, but the greater amount of dust coming back at that point destroyed some of the evidences; but there was plenty of visible evidence of heat to decide me that there had been an explosion at that point.

Q. If you were making an experiment with another runaway trip what conditions would you provide at the bottom of the slope so as to have them as nearly as possible like they were at the time of this runaway trip?

A. I would have them in the same conditions that existed that day. I would have nineteen cars run down there as they did that day and from the same point.

Q. How would you provide for being assured that you would get a short circuit of the wire?

A. That would be determined by the throwing out of the circuit breaker, or it could be arranged to throw the short circuit in a test, if it is to be decided by the throwing of a short circuit; but either one will produce an explosion—the open lamp on the rear of the trip, or a short circuit under the conditions that existed at that time. It could not be avoided.

Q. Have you been at the bottom of the slope since the trip was cleared away?

A. Yes, sir.

Q. Have you observed whether or not any water had been put on the ribs and roof by means of a hose?

A. They cleaned the place up some, after the explosion, and brought out the balance of the wreckage. Half of it was brought out the night of the explosion. I think nine cars were moved. We had to do that in order to get the dead out. I said to Mr. Ruckman "Don't move any more cars until the investigation is made"; so the cars were left there until after the investigation by the inspectors. The two tracks were cleared and the hose was attached to a pump and the place well watered and put in a safe condition.

Q. You think the dust made by the runaway trip was responsible for the first ignition?

A. Partly so.

Q. Then what propagated the explosion throughout the two mines?

A. The distillation of the dust gathered up, and the distillation of gasses from the combustion.

By Prosecuting Attorney Lowe: Q. You think the same conditions could be prepared at the bottom of the slope in case an experiment were undertaken?

A. I think so. It might not be quite as bad. It could be done in the course of a few days. It is cleared up now. The trip itself would produce an explosion, but whether it will produce a general explosion under the present conditions, I can't say. Under the conditions that existed that day it will produce a general explosion; and it will be heard at No. 8 mine first.

Q. Why would the indications make their appearance at No. 8 first when the origin was so close to the mouth of No. 6?

A. It has two routes to travel at No. 6,—the inward and outward. From that point to No. 8 it has one course to follow. That force would destroy No. 8 and the return force will save the slope at No. 6. Another great evidence is the return force through the connections through these two mines. Tons of dust were carried from No. 8 into No. 6 mine on the last return. While the blowing off process was going on at No. 6 those great return forces through the three connections brought everything in the direction of No. 6. You will observe that No. 8 has thirteen openings, including the falls, and that permitted an unusual rush of air after the explosion and the force coming through the three small openings brought everything,—the debris and dust—toward No. 6, and while that was going on the blowing-off process was going on at the slope of No. 6. If No. 6 had been as large again as it is, the blowing-off process would have gone on twice as long.

Q. Do you think it would have been possible or probable for the powder explosions,—found in one part of the mine,—or any of the shots that showed evidence of having been ignited, could have caused this explosion in the absence of the runaway trip?

A. In the condition of the mines as I saw them last that theory is all bosh,—an injustice to two great mines; an injustice to every mine and every operator; they would not blow up in a hundred years in the condition they were in.

By Mine Inspector Paul: Q. You spoke in your testimony of having found some mines that were so dusty that you had to insist on them being watered, and that the change in the atmosphere was responsible for that condition. Would not that same condition in your absence have affected these mines similarly?

A. If they had not been properly taken care of they would undoubtedly, but they were well taken care of. I could not think the company would be that neglectful with what I have seen and know of them. I never saw better precautions taken in regard to danger than there was there.

By Prosecuting Attorney Lowe: Q. How do you reconcile that statement with the statement made in your report wherein you call Mr. Paul's attention to the fact the accident must have been the result of a violation of your order?

A. When I was there I went over the situation. I looked at the switch at the bottom of the slope and I talked with Mr. Donlin, the mine foreman, about the danger, and I gave orders that that switch be kept open, and I found that was being attended to by Mr. Leonard. I also spoke to Mr. Donlin about watering in case of dust. There were one or two slight places (I think Mr. Victor will remember that) that had the appearance of becoming dry,—along the main haulway. I talked

to Mr. Leonard about the switch on both of my visits. He told me it was his duty to attend to the switch. I said "This is very important; the switch must be kept open when the trip is above this point and I want that done." He says to me, "Mr. LaRue, I have two jobs; I have the fan to attend to, and the engine; and sometime the engine gets hot and it is necessary to leave the switch and go back to it." I says, "You can leave the switch open when you are absent from it." I questioned him about calling other men in case of his absence and he told me he had the privilege of calling the men from the blacksmith shop. I said, "If you don't leave the switch open you must leave a man there; it must not be neglected." I think the jury understand that it has been neglected. Mr. Leonard testified about that. I talked about the drag,—asked why there was not a drag used,—and they told me the drag had been taken off because they had a wreck over the river and they had decided to take that off and put in a throw-off switch. I went over these things carefully, but with the arrangements that had been made I did not consider there was any particular danger at that point. I would have considered it safe if it had been my own mine. I thought it would be wrong to say to the company, "you put a man there permanently or I will object," when there were three or four men there in sight of the switch and the man who had charge of the switch had the privilege of calling the men to take charge of the switch in his absence; but it seems that what was any one's business was no one's business, and it is evident that a number of runaway trains have run down into the mine. My instructions have been violated in regard to the switch and also in regard to not keeping the dust down. The law has been violated. The conditions I saw there prove that. If I had not taken the matter up with Mr. Donlin about that switch I would consider myself responsible to a great extent; but I have done my duty. I have been very severely criticised, however, by men who came here from a distance after the explosion, but they were not familiar with the conditions. It is an unjust criticism; I have done my duty as I saw it and the very best I could. I want to say, also, that I am not making a fight against the Fairmont Coal Company. I have been treated kindly by them, and this has come on us all unexpectedly. I have felt the force of it, and the criticisms, that have been heaped on the company and myself are unjust; but there has been negligence shown, as you can see by the evidence, and you have seen what followed.

By Mr. Alexander: Q. The neglect has been due to some of the men and not to the company directly?

A. Decidedly so. I cannot see that the company has done anything wrong. I am sorry to have to say what I do in regard to the disaster.

Q. You made an inspection of No. 6 on October 7th and 8th?

A. Yes, sir.

Q. That was your last inspection?

A. Yes, sir.

Q. If you had this runaway trip at that time,—sixteen or nineteen cars wrecked at the bottom of No. 6 slope,—and a short circuiting, or some similar condition, would you have had an explosion?

A. I doubt it, under the conditions then—the damp condition. We might have had a local explosion.

Q. The dust you find in there now has been created by the explosion?

A. It is not dust, really; a percent of it is, of course. It is debris produced by the force there that could not be termed dust. There is some dust of course.

Q. Do you think there was enough dust in the mine at the time of the explosion, together with what dust was created by the explosion and the runaway trip, to make a different explosion from what would have occurred when you were there in September?

A. Decidedly so. I do not say that a trip at any time—under the most favorable conditions,—will not produce an explosion,—a local explosion—but in my judgment it will not be general.

Q. What were the differences in the conditions at the foot of the slope of No. 6 mine, or in the mine, at the time of the explosion and when you were there in October?

A. The conditions of the mine generally were different in October. There was a moisture on the sides and roof. It was like walking out on a spring morning when the dew was on everything. This time of the year everything is

dry and the dust was on the sides and roof and bottom, and the conditions were very different.

Q. What leads you to believe that there was dust in any considerable quantity at the time of the explosion, not created by the runaway trip?

A. I observed on everything—inward from the bottom of the slope a compact dust that was there prior to the explosion.

Q. But you think there is a great deal more dust there now than was there prior to the explosion?

A. I believe there is ten times as much as there was ever there before—ten times more debris or fine coal.

*Note by Mr. Alexander:* I want to say for the benefit of the jury and the coroner that we are as anxious to find the cause of the explosion as Mr. LaRue, or the mining department of the state, and we are perfectly willing—if it will give the jury any light on the subject—to take you out there and try and reproduce this explosion under the conditions that were there at the time of the explosion. We will take you out there and have this trip of loaded cars and let it run back down the slope and we will see that there is a short circuit at the bottom of the slope, and see if there will be another explosion. I do not mean that to be antagonistic to Mr. LaRue, but as a matter of information, if that will aid the jury and aid us in finding the cause of the explosion.

Mr. LaRue: I wish to say in that connection that if it does not produce an explosion I will withdraw my report.

By Prosecuting Attorney Lowe: Q. You speak of the last car being up the slope from the wreck, and certain coal also seemed to be thrown in that direction. Do you mean the coal from this one car or the coal from all the cars?

A. The coal that was piled up by the wreck, in the rear of the wreck.

Q. Would it not be the natural result, irrespective of any explosion, for the last car on the load, upon a sudden stopping, or wreck, to rebound? Would not that throw the coal in that direction?

A. Not to the extent that was produced there.

Q. You think there was more coal thrown in that direction than would have naturally resulted from a sudden stopping of the cars?

A. Yes, sir.

Q. Suppose the explosion had originated in the interior of the mines and reached that point about the time of the wreck, would not the same conditions have existed then as you found them, namely, the last car being blown out and the coal scattered?

A. The wreck would have been no detention to that explosion. We would have had the same result that we had at No. 8.

By Mr. Alexander: Q. Can you have a dust explosion without evidences of extreme heat?

A. Yes; without evidences of extreme heat at the initiatory point.

Q. Can you set off an explosion without extreme heat at the point of ignition?

A. It is possible in a strong current of air to start off an explosion without evidences being left of extreme heat.

Q. But can you start it without heat?

A. No, sir.

Q. How much heat? At what temperature will coal dust be ignited—the lowest temperature?

A. I am not prepared to answer. It will ignite from an open torch or an electric current. The condition of the atmosphere has a great deal to do with that. In a room where the current is feeble—such as would be allowed for a man to work in—there would be signs of intense heat and coking and burning. In an entry where the current is strong there would be less signs. The force of the explosion would be rapid from that point while from the other it would be slow and produce evidences of intense heat. In this case the explosion passed on with the rapidity of lightning with little evidence of fire left behind. Another thing: the pressure gauge: It shows a raise. When the trip wrecked it began to raise. That has been shown here. You will see that condition. It continued to raise until the fan house is destroyed by the return force.

By Mr. Alexander: Q. Whose neglect was the cause of this explosion?

A. Mr. Donlin coming by there and telling that man to leave the switch go in his absence. I hate to put the blame on a man who is dead, but my orders were countermanded in that way. You see the evidence before the court. That is what I term a violation of orders. Mr. Leonard said he was subject to the mine foreman's orders and obeyed them.

Q. You heard Mr. Ruckman testify that he instructed Mr. Leonard to call some one?

A. Yes, sir.

Q. And you also told him the same thing?

A. Yes, sir; and under that arrangement I thought it was safe. If I had not thought so I would have said so. I look upon the criticism of me as being unjust, and the criticism of the company as being unjust, but there has been a neglect of duty.

A recess is here taken till 1:30 p. m.

### JANUARY 13th—AFTERNOON SESSION.

Next came DAVID VICTOR, who having been heretofore sworn, testified further, as follows:

#### Testimony of David Victor—Recalled.

Examination by Mr. Alexander:

Q. Is there any method of preventing blown out shots from igniting coal dust in the mines, as good or better than watering the headings, haulways, return air courses and working places?

A. In my opinion there is.

Q. What is that method?

A. By the use of flameless or safety explosives—safety powder—in shot firing.

Q. Instead of black powder?

A. Yes, sir.

Q. And the use of that character of explosives in mines in shooting the coal would also avoid the danger of exploded powder—such as we have had in these mines—would it not?

A. Yes, sir; I believe the use of flameless explosives would eliminate ninety per cent of the danger of blown out shots.

Q. Can that character of explosives be fired by fire?

A. It is said not.

Q. How are these explosives discharged?

A. They are discharged with a detonator or electric battery.

Q. After you have watered the machine cuttings made in the mine by the under cutting have you accomplished your purpose of eliminating the dust?

A. No, sir; I would say not.

Q. Why not?

A. In the first place, because even by the application of 120 or 125 gallons of water you will not be able to eliminate the dust, for the reason that the dust will not mix with the water to any appreciable extent. After you have applied 120 or 125 gallons of water to the dust, the man goes in the room and has his shots to fire, after the water has been applied. He shoots his coal down, and that makes more or less dust; in the handling of the coal more dust is made, and a great portion of the machine cuttings will remain dry, to a certain extent, after they have been watered to the satisfaction of any person that might assume they could water them down. In other words, as I said, the dust will not mix with the water sufficiently to eliminate the danger.

Q. So that it is your idea that by the use of safety powder any dust that might be generated in the working places would not have something to set it off, or fire it, as in the case of the use of black powder?

A. That would be the idea.

Q. What is your information as to the use of these flameless or safety powders in the presence of fire damp?

A. It is recommended by various mining authorities to be safe under all circumstances.

Q. Your information is that it will not ignite dust?

A. Yes, sir; or gas under ordinary circumstances.

Q. I believe it has been tested in the presence of fire damp, or marsh gas, without firing them?

A. Yes, sir; so much so that it has been recommended in such cases.

Q. I believe it is the tendency of the flame of a blown out shot to go upwards till it strikes the roof of the room?

A. Yes, sir; I would say so. The tendency of heat and flame is upwards, although the blown out shots may be directed towards the pavements. I have seen blown out shots where the solid coal was distilled enough to generate a coke on the ribs; I have seen it so for a distance of 140 feet.

Q. Would it make any material difference whether the room was wet or not?

A. I would not judge so. I would think that if the roof had been previously wet the action of the flame would be the same.

Q. If you were going to have charge of the re-equipping of these mines No. 6 and No. 8, what recommendations would you make or what changes would you make in the way of providing safety conditions there?

A. I would recommend that the mines be thoroughly cleaned up and the haulways be kept reasonably damp and free of dust, by loading it out, and the use of flameless powder to blast the coal.

By Mine Inspector Paul: Q. I believe you stated in your former testimony that if you had all the money you wanted at your disposal you would not know how to expend it to make these mines any safer than they were prior to the explosion?

A. Yes, sir.

Next came FRANK HAAS, who having been heretofore sworn, testified further as follows:

### Testimony of Frank Haas—Recalled.

Examination by Mine Inspector Paul:

Q. Professor Jones has testified in regard to a test that has been made of a coupling pin, or portion of a coupling pin, that was found, that was broken when this trip ran away on No. 6 slope. That test was given at 50,000 pounds, and the test he made, I believe, was the bending or shearing test?

A. Bending test, yes, sir.

Q. What would have been the pull on that pin with the trip standing at rest on the tippie—about how many pounds?

A. The number of cars has been given at nineteen, each car weighing probably 8,100 pounds, making a total weight of about 153,000 pounds, if suspended vertically, but standing on an incline of five degrees, ten seconds, that weight would not have been more than about 13,000 pounds.

Q. What would have been the weight on that pin in pulling the loaded trip up the slope?

A. That would be difficult to say. We have not the measure of the friction; that would add to the weight, or equivalent of weight, but not so much as the original weight, or the cars would not have started of their own accord. I do not think it would have been more than 20,000 pounds.

Q. In pulling these cars up, the weight would not have been more than 20,000 pounds, you think? The weight—153,000 pounds—as given, is the weight if suspended vertically?

A. Yes, sir.

Q. In your opinion is it reasonably possible or practicable to eliminate dust from coal mines by watering?

A. No, sir.

Q. Why?

A. Because the peculiar properties of coal dust, when very finely divided, is to resist the mixture with water: the dust will float on the water and then the water will flow over the dust without mixing with it. It is the difficulty of mixing coal dust with water.

Q. Can you make a demonstration of that fact for the benefit of the Coroner and jury?

[Witness here makes the demonstration of attempting to mix coal dust with water.]

Q. About how much dust did you use in this experiment?

A. Less than a pound, I should think.

Q. I believe you have stated that the coal dust in the New England mine is similar to the coal dust in Monongah No. 6 and No. 8?

A. Yes, sir.

Q. The experiment you have just made shows, I believe, that some of the water went under the dust, and some of the dust floated on the water, and the water in turn flowed over the dust?

A. Yes, sir.

Q. And that after stirring it thoroughly and intimately it will not mix?

A. Yes, sir.

Q. And that you can pour the water off—after thoroughly stirring it with the dust—and the water remains practically clear?

A. Yes, sir.

Q. What was the condition of the dust underneath the water?

A. Dry.

Mr. Alexander stated to the Coroner that he desired to propound several additional questions to Mr. W. H. Bailey (heretofore sworn an testifying in this hearing) who was confined to his bed by illness; thereupon, it was agreed that the statement of the said Bailey should be taken by Earl Powell, a stenographer, and read to the jury and made a part of the record, the same as though said Bailey were present and testifying in person.

Thereupon, Earl Powell took the oath as prescribed by law.

Which statement is as follows:

### Testimony of W. H. Bailey—Recalled.

Examination by Mr. Alexander:

Q. After you have watered the machine cuttings have you accomplished your purpose of eliminating the dust?

A. No; because just as soon as firing a shot dust is again put in motion. As soon as you fire your shot and commence handling that coal you have created the same condition that existed before you watered it.

Q. Suppose you watered the sides and roof and pavement of a room and you had a blown out shot. What would be the effect?

A. The fact of watering the sides and pavements of a room would not in any way eliminate the dangers of ignition from a blown out shot, provided it was fired with black or flame powder and under a coal roof. All flames, no matter in what position a shot is fired, rush immediately to the roof and not to the pavement or walls. The watering wouldn't remove the small cubes of coal projecting from the roof which are so easily ignited when brought in contact with an immense heat such as is produced by blown out shots. It should be always understood that flames from blown out shots are confined to the roof.

Q. Is there any method of preventing blown out shots from igniting coal dust in the mines, as good or better than watering the headings, haulways, return air courses and working places?

A. Yes, there is a more rational one. It is not practicable to water the places within a mine, as we have heard in the testimony of some of the inspectors



given. You couldn't possibly mix the light dusts with water found in the return air ways. The only dust that can be dangerous in the event of a blown out shot where flame powder is used is that dust found in suspension at the working face. Haulways and return air ways could not possibly contribute to an explosion where no flame powder was used, which would eliminate the great heat generated by black powder from blown out shots; that is, understand, blown out shots where black powder is used, inasmuch as that in the recent past a great many lives have been sacrificed in mining, attributed mainly to blown out shots, which in turn ignite the dust in suspension, which heretofore had not been considered very dangerous. I believe if no flame powder was used all dangers would be eliminated so far as dust explosions are concerned. I would not recommend the watering of any part of the mine. I believe in the removal of the dust where there are accumulations of dust on the haulways, because to wet it, it is dust yet and it only requires a short time until it is in the same dangerous condition, if dangerous it is. As a matter of health as to animals and men, I would have the dust removed to keep it out of the circulating volume; that would be purely a matter of health, to prevent the men and animals from breathing it.

Next came JAMES W. PAUL, who being first sworn, testified as follows:

### Testimony of James W. Paul.

Examination by Prosecuting Attorney Lowe:

Q. Where do you live?

A. I am temporarily located at Charleston but my home is in Davis.

Q. What position do you occupy?

A. Chief of the department of mines of West Virginia.

Q. I believe you have held this position under the old mining law, and under the new mining law adopted by the last legislature you were continued in that position?

A. Yes, sir.

Q. How long have you occupied that position?

A. It has been almost eleven years since I went into the service of the State.

Q. What experience have you had and what study have you given to the subject of mining?

A. In my boyhood days I was a student of conditions in coal mines about my home; later I took up the theoretical study of mining; about eighteen years ago I took charge of some mine engineering work for ten or twelve mines in the New River field; later I was connected with the Monongah Coal and Coke Company; subsequently I took a course of civil engineering at our university and afterwards I took a post-graduate course in mining at Columbia School of Mines, New York, and was later made chemist for the Davis Coal & Coke Company—the last position I occupied prior to my being made chief mine inspector.

Q. What are some of your duties as chief mine inspector in relation to mine disasters?

A. To make an examination of the conditions under which the disaster may have occurred and report on the same.

Q. Have you ever made an examination of mines in which there have been explosions prior to the Monongah explosion on the 6th of December?

A. Yes, sir; in the neighborhood of fifteen different mine explosions.

Q. Did you make an examination of mines No. 6 and No. 8 at Monongah after the 6th of December?

A. I did.

Q. Were you acquainted with these mines prior to the explosion?

A. My information and acquaintance with the mines were based upon reports made to me by various district inspectors, with the exception of No. 8, which I had visited, I think, in October last, in company with the legislative committee, when we went a short distance inside of No. 8 mine.

Q. When did you reach Monongah after this disaster?

A. It was about noon on the 7th—the day after the explosion.

Q. Did you enter either of the mines soon after you arrived?

A. As soon as I could change my clothes to a mining suit, I went into No. 6 mine that day about 2:30 in the afternoon.

Q. Beginning with that time give the jury an idea of what length of time you spent in examining these mines and making investigations of them; also give them some idea about the thoroughness of that examination.

A. From the time of my first entering mine No. 6 I was constantly in service at one or the other of the two mines up until the 14th of December, which was Saturday, and on that day I went to the Naomi mines, Pennsylvania. Returning I resumed my work on the following Monday for the purpose of making a detailed examination of the conditions in the two mines, and, with the exception of about three days during Christmas week, that examination continued up until about the 2nd or 3rd of January. In this examination into the condition of the mines I have accumulated typewritten notes to the extent of about 180 pages. I had with me on this investigation two and sometimes three of the employes of the government as well as different ones of my inspectors.

Q. Did that examination cover practically all of the two mines?

A. Yes, sir.

Q. Were you enabled by that examination to arrive at the probable cause, in your opinion, of the explosion?

A. In my judgment I have arrived at the probable causes of the explosion.

Q. You may state what, in your opinion, these causes were, using the maps if you desire for illustration, and making such statements in regard to your observations as you may think proper.

A. I fully realize that there is a considerable diversity of opinion among educated mining men in regard to explosions in coal mines that may be attributed to dust. From the conditions of these mines and the reports made on them by persons who have testified in this hearing, I am led to believe that they were mines that were well ventilated, so far as taking care of and properly diluting any explosive gasses that might be liberated or generated in the mines. In reference to the runaway trip that occurred, I am satisfied that this is a most remarkable coincidence. If the theory advanced and accepted by the authorities in foreign countries—including Belgium, Germany and France—should prevail, more consideration might be given to the theory of the runaway trip having been an important factor in the explosion. In reference to the atmospheric conditions affecting this explosion, it is well known, and has been fully sustained by evidence given, that the humidity of the air and temperature are large factors in reference to physical conditions of any accumulation of dust that might be in the mines, or in suspension in the air of the mines at the time of the explosion. There is considerable yet to be learned in reference to the factors that enter into dust explosions and as to the various means of propagating the explosions throughout the mines. The accumulation of dust in coal mines is due to various causes: First, to the mining of the coal, the blasting of the coal, the breaking up of the coal, the transportation of the coal and its breakage and pulverizing by animals and men treading on it. There is considerable diversity of opinion among mining men existing on the efficiency of watering the dust on the entries and in the rooms. It is contended by some that there is no necessity of putting water in the rooms where men produce the greater quantity of coal; but the evidence at hand and my own observations after an explosion have been to the effect that evidence of the greatest heat is usually observed in the rooms of mines rather than on the entries. Conditions in the rooms appear to be more favorable for the generation of heat while the mechanical effects are more in evidence on the entries. The propriety of watering a mine may be manifold: First, the dampening of the material with which the water comes in contact; second, that it may answer the purpose of evaporation adding to the humidity of the air of the mines; and third, have a tendency to reduce the temperature of any explosive gas that might be inflamed. Important factors in tracing the evidence of mine explosions may be one of heat as against mechanical forces. It is clear in the evidence that has been given so far that either the heat evidences have been ignored or the mechanical forces have been

ignored, to a large extent. Another question to be considered is in reference to the recoil of an explosion, such as, for instance, that might occur in what is known as a tight end, or near the head of an entry; some people call it the backlash. It has been stated that this recoil has been very violent. It is contrary to the laws of physics that the backlash should exceed fourteen pounds pressure per square inch; it could not exceed the atmospheric pressure. From my observation in these mines it appears that there has been an explosion originating in some particular section of the mine by the inflaming of dust and that both the heat and mechanical forces demonstrate that there had been reinforcement by local explosions. These local explosions may have been caused by one of the following means: The dust in its agitation may have been ignited by flame; it may have been ignited by an incandescent carbon that may have been floating through the air; the dust and air may have been ignited by an open light carried by a miner; the dust and hydro-carbons liberated may have been ignited by compression due to the force of an explosion in some other part of the mines. I take no exceptions to that part of the theory advanced of the formation or distillation of gas from the charred coke. We well know that coke cannot be formed without the generation of explosive gasses. The evidence of the force of travel of an explosion may be observed from the rounding effect of the exposures of the coal. This may be brought about by means of what may be called, first, a sand blast, and second, heat blast. The effect of a small percentage of methane gas is well known to be a source of danger in the presence of dust where there may be a temperature sufficient to ignite it. The gas found after an explosion in which dust has been an important factor may be carbon monoxide gas, ethylene gas, acetylene, ethane gas, and possibly some oxygen and some nitrogen and carbon dioxide. As evidence of the distillation of these gasses as found in these mines is a substance that has been called stalaetic carbon—or asbestos carbon, known by some. That is partially in evidence by the burning of the distilled gasses from the coal. There is some diversity of opinion in regard to the velocity of explosives per second, but the authorities I have consulted give 75% dynamite at 15000 feet per second; marsh gas with oxygen 6,850 feet per second. There seem to have been few practical experiments made with the gasses other than the laboratory tests with oxygen to determine the velocities. In reference to black powder, the information is exceedingly meagre; however, the authorities conferred with assign to black powder a velocity of 4.6 feet per second; that is the rapidity with which it would travel in a train that might be strung along a board. These have some bearing on the velocity or ignition of an explosion of gas or of dust and air. An important factor of dust explosions is the limit of the inflammability of the mixture. It is well known that gasses of certain percentage will explode and when these percentages are lowered or increased by certain agencies, you do not get an explosion. That is true of a mixture of dust and air or dust in the presence of explosive gas that may have been distilled from the coal. The evidences throughout these mines seem to confirm this idea as indicated by the presence of charred dust and blistered coke at various points. That might be brought about by the travel of the accumulated dust and the air, by reason of the fact that at some particular point some obstruction may have interfered and caused a mixture to be made at that point that would permit of an explosion and the plastering of the charred dust of coke against the wall or the plastering of the dust that might be in suspension against the wall. The important factor in connection with the danger of dust explosions is that coal when broken or ground up fine liberates a certain amount of explosive gas. This gas might not be sufficient to be ignited by an open lamp or detected with a safety lamp, but upon chemical analysis it is found to be present. That, in connection with conditions favorable for the ignition of coal dust, would easily favor and add to the explosive force. This propagation of an explosion by inflammation of coal dust may be by reason of a flame being transmitted from one point to another by the particles of dust that may be in suspension. It may be propagated by means of flame itself and may be propagated by the local explosions in transit that I have mentioned, as well as by the incandescent carbons. No practical experiments have been made in reference to pressures that may be given off in a mine by explosion, for reason of the fact that it is impractical to make a test on a large enough scale to be of actual bene-

fit. Theoretically, methane gas with oxygen gives about 13.6 atmospheres when exploded at atmospheric pressure. Another reason I may mention to account for there being a lack of information on higher pressures in explosions in mines, is that the pressure is probably reduced by dissociation of products formed at high temperature. Very little is known of what the actual conditions are, especially as gasses under high pressure and high temperatures oftentimes change their specific heat, which changes are large factors in matters of this character. At least 95% of the explosions that I have come in contact with have occurred in mines in which electricity is used, consequently I think it would be well to give attention to the probable formation of ozone—which is a high oxidizing agent—in connection with dust explosions. As to preventative measures for dust explosions I believe in a liberal supply of water throughout the mine and the adoption of safety explosives. In reference to my idea as to the origination of the explosion in these two mines, as I previously stated the runaway trip is worthy of serious consideration. I can see where there would be a possibility of an explosion having originated at that point which may have produced favorable conditions in different parts of the mine and caused local explosions to have occurred at these and other points. There are several points at the face of the workings where evidence of considerable heat and violence is manifested. It is not necessary—according to my observations—that you have evidence of great heat or violence at the origin of a dust explosion. A dust explosion usually accumulates in power as it travels, causing destruction on the intake air-course, where it has free access to a supply of oxygen. In formulating my judgment—and this is the first time I have expressed it—I am constrained to corroborate the idea that this explosion may have originated in third left entry off second North, No. 8 Mine. The conditions in there were favorable for the inflammation of the coal dust that may have been in suspension in the air, or of the fine coal dust that may have been on the ribs. There was evidence of some coal having been recently blown or blasted down. That coal disengaged fine dust and put into suspension fine particles of dust and may have disengaged a small percentage of methane gas, which in turn were all taken into the intake air-current and carried toward the head of third left entry. The blast at face of the entry seems to have done its work only partially. Some two feet of the hole remained in the solid coal, giving evidence of an overcharged shot. That, in my judgment, would have been sufficient to have inflamed the dust with its accumulation of gasses that may have been generated by the mining and blasting of the coal.

Q. Something has been said about the condition of the mines with respect to its dryness in the summer months and in the winter time, and, therefore, giving rise to a greater necessity for securing greater dampness in the winter months by watering, or otherwise. Would you mind explaining to the jury why this is true, if it is true?

A. The atmosphere—under certain conditions and temperatures—has the ability to hold in suspension a certain amount of moisture, and when it has all in suspension it is capable of holding it is said to be saturated; that is, it can hold no more moisture in suspension. By a change in temperature of the air—by increasing the temperature of the air—it is able to hold a greater percentage of moisture. By decreasing the temperature of the air it is not able to hold all of its former moisture, and so the moisture is precipitated, or drops, when it comes in contact with the surfaces of exposures, or whatever it may come in contact with. In the summer time the air outside being usually of a warmer temperature than that of the mine, it may go into the mine holding a larger percentage of moisture, but on coming in contact with the surfaces or exposures—such as the roof, sides and pavements of the mine—its temperature is reduced; consequently it deposits a part of its moisture on all surfaces with which it may come in contact. In the winter time the conditions are different; usually the temperature on the inside of the mine is warmer than that on the outside. The air coming into the mine at a lower temperature has in suspension a certain amount of moisture, and in going into and through the mine it is heated, and then has the property of taking up more moisture, and if there is any opportunity of taking up moisture (and all substances contain more or less moisture,) it absorbs additional moisture; and thus the moisture of the surfaces and exposures of the coal are absorbed by the air as it travels through the mine. I

have—as evidence of the above—conditions taken at No. 8 mine a few days ago. Just inside the main return air way, about thirty feet, we found the humidity to be 93%, while on the outside of the mine the humidity was only 48%. At No. 6 mine, I found the humidity outside to be 48%, and about 1000 feet inside the mine, near a steam pump—probably fifteen feet from the pump towards the outside, on intake current—there was a humidity of 54%. There was some little steam escaping from a drainage pipe of the pump, and about 50 feet beyond the pump there was a humidity of 66%, showing that the escaping steam had added about 12% to the humidity of the air.

Q. Who accompanied you in making these examinations of these mines besides the government men and your own district inspectors?

A. Part of the time I was in company with the Ohio inspectors, who have been here and testified, and a small part of the time I was in the mine I was in company with three inspectors from Pennsylvania—Messrs. Ross, Adams and Roby—as well as some of the employes of the Fairmont Coal Company.

Q. Did the Pennsylvania inspectors make to you a written report in regard to their observations?

A. They did.

Q. Have you that report with you?

A. I have.

Q. Will you please let me see it?

[The report above mentioned is here handed to the Prosecuting Attorney.]

Q. These persons signing their names to this report are the same inspectors who were here from Pennsylvania and made an examination?

A. Yes, sir. I may state in connection with this report that these men came here and visited the mines, and made the report at my request, for my information and for the benefit of their judgment.

The Prosecuting Attorney here offers the above report in evidence, to the introduction of which Mr. Alexander objects on the ground that the said report is not under oath, and that the persons making the report are not present to testify.

The objection to the introduction of said report is here withdrawn, and with the consent of the Prosecuting Attorney and Mr. Alexander and the assent of the Coroner, the Jury is permitted to take said report and read the same, and if they so desire, consider it for what it is worth; if they do not so consider it, it is not to be made a part of the record.

[The maps heretofore used in the testimony of witnesses for reference are herewith filed as parts hereof.]

### VERDICT OF JURY.

State of West Virginia,

Marion County, to-wit:

An inquisition taken at Fairmont, County of Marion, State of West Virginia, beginning at Monongah, December 7th, 1907, and concluded at Fairmont, West Virginia, on the 15th day of January, 1908, before E. S. Amos, Coroner of said County, upon a view of the bodies of A. H. Morris, Charlie McCane, John M. McGraw, and about three hundred and fifty other bodies then lying dead.

The jurors sworn to inquire when, how and by what means the said A. H. Morris, Charlie McCane, John M. McGraw and about three hundred and fifty other persons came to their death, upon their oaths do say that we find from the evidence in our possession that A. H. Morris, Charlie McCane, John M. McGraw and about three hundred and fifty (350) others, whose names are made a part of the record herein, came to their death on the 6th day of December, 1907, by means of an explosion in Monongah Mines numbered six and eight owned or operated by the Fairmont Coal Company, which was caused by either what is commonly known as a

blown-out shot, or by the igniting and explosion of powder in Mine Number Eight. As to which caused the initial explosion, the evidence and opinion of mine experts, and other witnesses, was conflicting.

We further find from the evidence that the traces of gas in these mines were slight, and not considered dangerous, and dust which was created was removed or kept watered down as far as was deemed practicable, and that in operating these mines the Company complied with the mining laws of the State.

#### RECOMMENDATIONS.

As there are many unsolved problems connected with coal mine explosions in the United States, we recommend that Congress make an appropriation for the establishment of a Bureau of Investigation and Information to aid in the study of the various conditions under which explosions occur, and as to how they may be prevented.

We also recommend the more general use of "safety or flameless powder", which we believe would tend toward greater safety in coal mining, and that the firing and handling of explosives used in coal mines be placed in the hands of experienced and competent persons; and, also, that clay, or some non-combustible matter be used in tamping.

Owing to the fact that there are over sixty thousand persons now employed in the mines of West Virginia, we further recommend that four (4) additional District Mine Inspectors, and two (2) Inspectors at Large be appointed.

IN TESTIMONY WHEREOF, the said Coroner and Jurors set their hand, the 15th day of January, 1908.

[Original signed by Coroner and Jury.] )

State of West Virginia,  
Marion County, ss.:

We, Nellie B. Clemmer and E. C. Frame, Shorthand Reporters, do certify that the foregoing is a true and accurate transcript of the shorthand notes of all the evidence given at an inquisition held at Fairmont, Marion County, West Virginia, beginning on January 6th, and concluded January 15th, 1908, before E. S. Amos, Coroner of said County, upon the view of the bodies of A. H. Morris, Charlie McCane, John M. McGraw, and other bodies then lying dead.

Given under our hands this, the 18th day of January, A. D., 1908.

NELLIE BLY CLEMMER,  
E. C. FRAME.

# HEARINGS AT CHARLESTON.

JANUARY, 1908.

The Committee met pursuant to adjournment, in the Finance Committee room of the Senate, in the city of Charleston on Thursday, January 23rd, and there were present Messrs. Gartlan, (Chairman), Kidd, Strickling, Duty and Mitchell, members of the Committee, and the Secretary and Sergeant-at-Arms.

The hearings were resumed and the following testimony was adduced:

J. W. PAUL, a witness of lawful age, being first duly sworn testified as follows:

## Testimony of J. W. Paul.

Examination by Senator Kidd.

Q. Please state to the Committee what position you hold?

A. I am Chief of the Department of Mines of West Virginia.

Q. State how long you have held that position?

A. Under that title since the first of July, 1907; prior to that—since 1897—the position of chief mine inspector.

Q. Please state where you were educated and to what extent you made mining a study prior to your appointment to the positions to which you have referred?

A. Primarily I attended the common school at my home and when about eighteen or nineteen years of age I entered the State University at Morgantown and completed a course in civil engineering, receiving a diploma in 1894. During this interval I was absent from the University three years, one year of which I spent in several mines on New River, about Thurmond, doing mining engineering work, and I returned to the University in 1892. I visited the Monongah mines for the purpose of indicating some engines and was given employment as the mining engineer for that company, during which time I did some chemical work for the company. I later went to the School of Mines at Columbus College, New York, and took a special course in mining. Returning from that school I was employed by the Newburg Orrel Coal & Coke Company, in Preston county, to do some engineering work for them, and after completing that work I was made the chemist for the Davis Coal & Coke Company. While occupying that position the office of chief mine inspector was created by the legislature and Governor Atkinson appointed me chief mine inspector.

Q. Have you since your appointment by Governor Atkinson visited the various coal fields of the State?

A. I have.

Q. About how many mines are now open and in operation in West Virginia?

A. About seven hundred and fifty.

Q. And about what number of men are employed ?

A. In the neighborhood of sixty thousand.

Q. How many deputies have you under the present law?

A. Twelve.

Q. You have the State divided into districts, have you?

A. Yes, sir; it is divided into twelve districts.

Q. With the number of mines which you have stated, in your opinion are more deputies needed?

A. Under the conditions of the inside management of the mines, as now exists, I think there is a necessity for additional inspectors.

Q. About how many would it take to meet the demands as you see them?

A. Not less than four nor more than six additional inspectors.

Q. In your opinion ought there to be what is called an assistant inspector for the State at large?

A. I believe that the chief of the department of mines should have at his disposal an assistant at large whom he might detail for special duty, and especially for making inspections at those mines where complaints are made by employes.

Q. Is it possible for you to answer all the calls or to make these investigations as you think they should be made?

A. It is not.

Q. Mr. Paul, I will ask you if there is that care and attention given to the inside working of the mines of the State, by the operators, which should be done to properly protect the lives of the miners and to safeguard the property of the operators?

A. In some instances it may be, but in a good many instances it is not, largely for the reason of technical problems entering, that the management of mines and the foremen inside the mines are not entirely familiar with.

Q. Did you examine what is known as the Stuart mine, in the New River field, after the explosion which occurred on the 29th day of January, 1907, and which resulted in the loss of a great many lives, and if so, please state from your investigation the cause of that explosion and all you ascertained about it?

A. I did examine the Stuart mine after the explosion and made an investigation of the inside workings of the mine with the view of satisfying myself as to the cause of the explosion. I had just returned from visiting a mine in Upshur county in which there had been an explosion, and I heard on the street late in the evening of the 29th that a mine had exploded at McDonald. I put in a telephone call for my inspector at Montgomery and also a telephone call to Mr. Smiley, at McDonald, to ascertain whether there was any truth in the rumor. I got Mr. Smiley on the telephone that evening and he said there had been an explosion in the mine but he had no idea as to how many men were in the mine, and that no person had as yet been able to descend the shaft. I then put in telephone calls for several of my mine inspectors with instructions to go to the scene of the disaster as early as possible. I got in communication with Mr. Absalom, inspector at Montgomery, late that evening, and he said he had received no word of the explosion at that time, but later he advised me that he had received information of a small explosion and started for the mine. The next morning he telephoned me that the explosion was a serious one and that there were supposed to be at least fifty men in the mine. I left on the first train after this communication but was delayed by reason of the trains being late on the C. & O. railroad. I arrived at the Stuart mine on the morning of the 31st of January and nine bodies were reported as having been taken out of the mine. It was sometime until they were able to get the cage in the shaft to the bottom, for the reason of the partial destruction of the guides. About 8:30 p. m. on February 1st I received a telephone message that the cage had gotten within eighteen feet of the bottom of the shaft and I immediately made preparations and went down the shaft. That was about ten o'clock at night, and I found at the bottom of the shaft twenty-two corpses. Up until 3:30 of the morning of February 2nd I saw thirty-eight bodies taken out of the mine. I afterwards, from time to time, visited the workings of the mine and advanced to such parts as the ventilation had been restored to, and eventually succeeded in getting over all the mine. I made sufficient examination of the parts of the mine, observing the direction of forces and the evidences of mechanical destruction, to lead me to conclude that the explosion



had originated in the third left off the Parral entry, known as the Dick Lee entry. As to the initial cause of the explosion I can corroborate the evidence taken by your Committee of Mr. Sam Dixon and Mr. Fred Dixon—that it was an ignition of gas. I think that ignition of gas occurred at room number four off the third left entry, commonly known as the Dick Lee entry. The body of Dick Lee was found just inside the mouth of room No. 4. This room had been driven in a distance of twenty-four feet. The face of the room had been undercut with a mine machine and three holes had been drilled in the face of the room—one near the right rib, three feet deep; one near the center of the room, three feet six inches deep; and one near the left rib, three feet three inches deep. The evidence was that none of these holes had been fired. I found immediately under the outward end of the holes, and on the pavement, conical piles of fine coal which had formed there by reason of the drillings out of the holes. These conical piles of fine coal had a slight deposit of charred dust on them. On the right rib at the face of the entry was evidence of an old hole that had been previously shot. One half of this hole was in evidence in the coal and resembled a trough standing on edge. It has been suggested that one of these remaining holes in this room had been fired and that its blowing out was the cause of the explosion, but in this hole I found a considerable quantity of drillings which would not have been there if the hole had been fired. Dick Lee—whose body was found inside of this room—is reported as having been a practical miner of probably twenty-four years experience; and in the first place it would have been impracticable for the right rib hole to have been fired previous to the center hole, and even an inexperienced coal miner would not have thought of remaining within twenty-four feet of any hole that might be fired. At the bottom of the shaft there was evidence of great destruction, the bodies of the men being badly burned and in a number of instances they were very badly dismembered. The indications near the bottom of the shaft would indicate that some of the men may have had some explosive with them, or near them, which may have been exploded by reason of the force or heat of the mine explosion. I found evidences at different times of the presence of explosive gas in different parts of the mine, and upon visiting this mine in company with Mr. John Brooks, on February 11th, on account of the presence of gas in the mine we were unable to make an exploration of the mine. I again visited this mine along with Mr. Andrew Roy and succeeded in exploring only a small part of the mine on account of the accumulation of explosive gas. I have information that on the morning of the explosion there were two rooms on what is known as the Bradley entry which were reported as being full of explosive gas. The dust in the mine was a small factor in the explosion although it showed evidence of having taken some part.

Q. In your opinion was the gas that caused that explosion developed by the striking of a pocket or was it the result of an accumulation of gas in the mine?

A. I think it was most probably due to the accumulation of gas within the mine by reason of the temporary disarrangement of some of the doors or brattices.

Q. Was that temporary disarrangement of considerable or short duration, in your opinion?

A. It may have been for a period covering an hour or two hours.

Q. Was it such a disarrangement as could have been remedied by proper supervision?

A. The evidences within the mine, and from my information of the conditions in the mine would lead me to believe that sometime prior to the explosion these facilities for conducting air were in proper condition; but by reason of a wreck that had occurred in the shaft sometime previous to the explosion, some employe within the mine may have left open the door, or some employe in the handling of a car may have left open or left down a brattice cloth or curtain which was used for conducting the current of air, permitting the current to short circuit, thus allowing an accumulation of gas beyond that point.

Q. In your opinion if the appliances which you found had been in use and operation at that mine had been in proper shape, would they have been sufficient to have dissipated the gas and avoided the accident?

A. With the facilities that there was evidence of having been at hand, and

with the equipment for the ventilation of the mine, I think they were ample to have properly diluted the air and made it safe from an explosion.

Q. What kind of a fan had they at the Stuart mine at the time of this explosion?

A. What is known as a Cappelle fan.

Q. Is it one of the improved makes of fans?

A. It is so considered.

Q. Was it sufficient to have scattered the air through the entire workings of that mine in sufficient quantities to have made the mine safe?

A. It was of sufficient capacity to have ventilated properly a mine many times larger than the Stuart mine.

Q. In your opinion was that explosion caused by negligence, and if so, upon the part of whom?

A. My previous statements would indicate that some inattention had been given for the facilitating of sending the air through the mine.

Q. Did that result from the men in the mine or the operators?

A. I have not sufficient knowledge of the actual conditions to answer that question definitely.

Q. If it showed that there was gas in two of the rooms on that morning, in dangerous quantities, then this accumulation of gas had been of several hours duration, had it not?

A. The gas to which you refer, and which I presume you refer to as being on what is known as the Bradley entry, had been several hours accumulating.

Q. Well now, what effort, if any, had been used to dilute that gas?

A. I found no evidences of any effort having been made, for the reason that any evidences of those facilities, if they did exist, had been destroyed by the violence of the explosion, and then they were in a part of the mine that was afterwards flooded with water.

Q. Do you know whether or not the gas in the two rooms referred to exploded at the time of the general explosion?

A. I would not say, as I was not in those rooms after the explosion, on account of the accumulation of water.

Q. How many men were killed in the Stuart mine at that explosion?

A. My information is that there were eighty-five or eighty-six.

Q. Were any rescued alive?

A. None that I have any knowledge of.

Q. How many openings were there at that mine?

A. It had one opening to the surface.

Q. Did it come home to you that this mine was being run contrary to law?

A. Some months prior to the explosion my attention was called to the fact that there were employed more than twenty men in the mine at one time and I gave written instructions to my district inspector in regard to it and he in turn communicated the same to the operators of the mine in a letter as well as on his certificates. Later he made an examination of the mine—on or about the 21st day of December—and he then reported in his report to me that there were about thirty men working in the mine but that eighteen of them were working on day shift, and his information was that they were employing regularly twelve men on night shift for shooting down slate and extending the workings of the mine toward the Parra mine with the view to obtaining a second opening.

Q. Do you know whether or not the deputy mine inspector notified them on what day he would be there to inspect the mine in December?

A. I have no information that he advised them of his contemplated visit to the mine.

Q. Have you information that before that and after that day they did work more than thirty-eight men?

A. I have information since the explosion occurred that on the day he was at the mine—and I think on the day previous to the day he was at the mine—that they anticipated him being there by reason of his having been at other mines in that vicinity, and that the superintendent of the mine had sent a sufficient number of men back home so as to reduce the number of men to twenty in the mine; and I have

information also that they had some cars switched from the mine at night in order that he might not see the cars there. However, this is all upon information.

Q. Who was the deputy inspector of that district at that time?

A. John I. Absalom.

Q. Is he still a deputy inspector of the state?

A. He is not.

Q. When were his services dispensed with and for what reason?

A. I believe it was about the 20th of May last that his services were dispensed with, to take effect the 31st of May. It was done because of his having appeared at the inquest on the Whipple mine disaster, on or about May 20th last, in an apparently intoxicated condition and not fit for service.

Q. When at himself was he an efficient inspector?

A. I had always so considered him—that he was a competent mine man and an efficient employee.

By Delegate Duty: Q. Do you know where he is now?

A. I understood after leaving the services of the state that he was later employed on Morris Creek, above Montgomery, working for a man by the name of Todd who is operating a mine there. He is working, I think, in the capacity of mine foreman.

By Delegate Mitchell: Q. As a competent inspector should he not have been able to determine the difference in the amount of work as performed by twenty men and that performed by eighty men?

A. If a man would go through a mine carefully and make a proper examination of the mine, and should observe the presence of miners' tools in the mine, noting the rails entering the rooms and entries as to whether or not they had been used by cars, he ought to be able to tell approximately what work had been done in the mine and how recently. It is very prevalent in the mines at the present time that in order to maintain fifty men in a mine they usually have about twenty-five or forty percent surplus of men for the reason of a large number of them remaining out of the mine at times and that might be a factor in a man determining how many men were working in a mine.

Q. Is the report of the inspection by him upon the 21st of December the only report you had from him in regard to the Stuart mine? That is, do you know of any report previous to that?

A. Yes, sir; I had a report from him prior to that that I made mention of awhile ago, at which time he made mention of their having an overplus of men in the mine over and above twenty, after which he called their attention to the matter in writing, and I made an acknowledgement of his report together with a copy of a letter that he addressed to the company, in which I urged upon him the importance of following up his instructions to see that that feature of the law was fully complied with.

Q. When was that, Mr. Paul?

Witness: The date of that inspection?

Delegate Mitchell: Yes, sir.

A. August 30th. I might read the letter, if you care to hear it.

[The witness here reads the letter in words and figures as follows:]

“DEPARTMENT OF MINES STATE OF WEST VIRGINIA.

“JOHN I. ABSALOM.

“Mine Inspector, Fifth District.

“POWELLTON, W. VA. August 30th, 1906.

“Mr. Fred Dixon.

“Supt. Parra! and Stuart Collieries.

DEAR SIR:

“In addition to my certificates of this date, I enclose marked copy of West Virginia mine laws and respectfully call your attention to section No. 6 of same, to which you do not comply, as you failed to provide a second opening while employing more than twenty persons in the mine at one time. This section applies to both Parra! and Stuart mines.

"With section No. 8 your carriages do not conform. At Parral no safety catches; at Stuart, no safety catches or bonnets.

"I call your attention to above conditions as directed by section 12.

"Hoping that you will succeed in rapidly advancing connecting entries between the above shafts, I am

Respectfully yours,

"JOHN I. ABSALOM,

Mine Inspector,

"Fifth District."

Witness: My answer to that letter was as follows:

"MR. JOHN I. ABSALOM,

"Mine Inspector,

"Powellton, W. Va.

"Sept. 11, 1906.

"DEAR SIR:

"Your August monthly reports arrived at this office during my absence and I have just today read them.

"I note especially your instructions to the operators of the Parral, Stuart and Wingrove shaft mines. You will please follow up these instructions and see that the law is complied with, advising me by letter if you are unable to have a compliance.

"I would think to divide the employees into shifts would work no special hardships upon the operators of these mines.

"Very truly,

"J. W. PAUL,

"Chief Mine Inspector.

"J. W. P.

Q. Well, then, having made this inspection at that time, and another inspection in December, if he had been competent, should it not have appeared to him that there was more work done there during the interval between the inspections than could possibly have been done by twenty men?

A. He ought to have been able to judge by the advancement that the workings had made. There can only be so many men working in any given place in a mine—for instance, at the head of an entry. You may be able to work it at all hours of the day by having two men in on each shift—either on two shifts or on three shifts.

Q. If a thorough inspection of a mine is made by an inspector, and great progress had been made between that and some other inspection, would not that have been absolute evidence of the fact of the employment of more men than were reported?

A. It would in the development of different places, but not so much in the development of any one particular place. Now, for illustration, the Parral entry: they could only advance so fast if it was worked at all times and any other entry should advance so fast if worked at all times. The only way a man could tell as to the amount of work that had been done would have been to have noted the distance that each particular place might have advanced since he was there at his former visit.

Q. If he had made a thorough inspection shouldn't he have been aware of that fact?

A. Well, if he had kept in mind the exact development of the mine at his former visit he would then have been enabled to have formulated some judgment along that line: but you must bear in mind that at the time the inspector at this mine did inspect he had probably one hundred others; and unless he carried with him a map of the mine and had measured up the distances that the places had advanced since he was there formerly, he would not be in as good position to have judged of that. Now, to do that character of work it will require a large number of inspectors. They do not usually do that character of work—measure up the distances that a mine may have advanced since their previous visit. They rely upon the

maps that are furnished them by the operators. It could be told if a map had been made at the time of his former visit and there was one made at the time of his subsequent visit—he could tell exactly the development the mine had made in the meantime. That is about the most correct way an inspector would be able to judge unless it had been an exceedingly small mine.

Q. Does your office take cognizance of the tonnage shipped from mines?

A. Yes, sir; the office annually publishes the amount of coal that is mined for the twelve months.

Q. How often do you receive those reports before making your annual report?

A. Once a year.

By Senator Kidd: Q. Now, I will ask you, Mr. Paul, in this day of great development in the coal fields of the State and elsewhere, if attention is not mainly directed to the amount of the output rather than the preservation of the lives of the men and the property?

A. In answer to that question I will say that the primary purpose of a coal mine is for profit—to mine and sell coal. The care of the employes is incidental to the business of coal mining.

Q. Ought not matters to be reversed?

A. It would be better if the primary care or object should be the safety of the men.

Q. Does the use of electricity in these mines add to the danger?

Witness: Is that a general question?

Senator Kidd: Yes, sir.

A. It is a factor of danger in several ways, one of which would be the coming into contact with a wire that was badly installed, subjecting persons to a charge of the electrical current.

Q. And isn't there danger of an explosion of gas at the upper part of the mine where these wires run, when sparks are emitted?

A. The electrical wires may be considered a factor of danger in gaseous mines, especially at advanced parts of the mine, that may be liberating gas, and where the electrical machines may be in operation that would emit flame or sparks.

Q. Could these wires be so arranged as to be at the bottom of the mine?

A. It would be possible to put them in pipes or conduits, the same as telephone wires are put underground, but in that case it would be impracticable to operate an electrical motor for hauling purposes. It could not have contact with a wire unless that wire should be placed where it would be exposed.

Q. Well, gas accumulates at the highest point in the mine, does it not?

A. It accumulates in the highest point of a mine with respect to its elevation above sea level, and in cavities in the roof, by reason of its being of less specific gravity than the atmosphere.

By Chairman Gartlan: Q. What proportion of the mines in the State, if you know, are using electricity? What percentage, I mean?

A. I could not tell you that definitely, now, but I can by consulting my records in the office. I would judge it would be at least eighty-five or ninety percent.

Q. Have you a record of how many men have been killed by electricity in the State within the last year?

A. I would have to consult my office records to tell you that; I can give it to you later.

By Senator Kidd: Q. I will ask you whether or not where the miners are in a union, if they look more carefully after each others interests than they do where they are unorganized?

Witness: By "they," you have reference to the men?

Senator Kidd: Yes, sir; in the mines.

A. Where the men are organized they—through their committees and officials—confer among themselves as to dangers and violations of law, and frequently notify the inspection department. Where the men are not organized we do not have the benefit of those notices.

Q. Then, in your opinion, would an organization be beneficial to the mining interests of the State?

Witness: Known as a labor union?

Senator Kidd: Yes, sir; a miners' organization—I do not know what they call it—it is just where they organize and stand together as an order.

A. I think where men associate with each other as an organization, that their welfare is sometimes better looked after than where they do not have the benefit of that organization. Whether it be a fraternal order or any other kind of an order it may enable them to get together and discuss matters pertaining to their welfare.

Q. Have you found among the operators of the State an unfriendly feeling toward organizations of laborers or miners?

A. My observation and information has been that there are several localities in the State where they do not extend a glad hand to organizations.

By Delegate Strickling: Q. After you received information in August of the company working more men in the Stuart mine than were authorized by law, and after you had directed your district inspector in the letter you read to see that the company complied with the law, what information after that did you receive as to whether the company was complying with the law?

A. Sometime after that correspondence was had I saw Mr. Absalom in Charleston and mentioned this matter to him and he advised me that he understood his instructions were being complied with. The next information I had was his report in December that they were working, I believe, thirty-eight men on two shifts—on a day and night shift.

Q. Was that report in writing?

A. Yes, sir.

Q. Have you that report?

A. I have two reports here—one on the Parral and one on the Stuart mine—made under the same date and received at the same time, on which is noted on the back of one the information that I have just given you in reference to the men being employed on day and night shifts. I will file this report, or a copy of it, if you wish, as part of my evidence.

By Chairman Gartlan: Q. Mr. Paul, in your opinion if the connection had been made between the Parral and Stuart mines and an explosion occurred as it did in the Stuart mine, what would have been the result in the loss of life? Was the explosion strong enough to have killed the men over in the Parral mine?

A. I think it would have been strong enough to have killed the men who worked on that part of the Parral mine coming towards the Stuart mine.

Q. Well, then, in your opinion the better way would be to have a second opening in a mine itself rather than to have connection with another mine and covering such a large area of territory?

A. Yes, sir; a shaft often times forms a safety valve to an explosion in a mine and it has frequently occurred in shaft mines that an explosion occurring on one side of the mine would get relief when it came to the shaft and would not injure the mine on the opposite side of the shaft.

Q. In the Stuart mine men were killed on both sides of the shaft, were they not?

A. Yes, sir; that is right.

By Senator Kidd: Q. Please tell us the result of your examination concerning the explosion that occurred in the mine at Lorentz, near Buckhannon, Upshur county, and give us the cause of the explosion, the number killed and so forth?

A. On January 26th, 1907, at about 6:30 p. m., an explosion occurred in the Penco mine, operated by the Pennsylvania Consolidated Coal Company at Lorentz, Upshur county. It caused the loss of the lives of twelve men—five Americans and seven Italians. I went to the mine immediately upon being advised of its occurrence and made an examination of the mine, and viewed all the bodies that had been taken out of the mine. I found evidence to the effect that in the main entry—about one hundred and fifty to two hundred feet back from the face of the entry—a powder flask and a twenty-five pound keg of powder had exploded, causing a flame to rush out of the mouth of the mine. The mine has very small development, the face of the entry being in only about nine hundred feet from the drift mouth. Only two persons showed evidence of having been seriously burned and they appeared to have been on their way into the mine at the time of the

explosion. Their burns were sufficient to have caused their death. The other persons lost their lives by suffocation.

Q. That was the result of carelessness, was it, in your opinion?

A. It was either the result of carelessness or an attempt on the part of one man to play a joke on other men in the mine. It appeared that the flask of powder had been filled from the large keg and was exploded ten or twelve feet away from the full keg, which communicated with the large keg. There was evidence of considerable charred dust in that vicinity. We also found a box of squibs nearby. No person was burned directly by the powder and it was at a place where there was no work being done. The report of the coroner's jury was to the effect that it was due to carelessness in the handling of powder.

Q. I will ask you, Mr. Paul, what authority you have under the law to correct violations when reported to you, on the part of the operators, and if, in your opinion, more power should be given you and your deputies to correct evils of that character?

A. There are several provisions of penalties in our law, a number of which is to swear out warrants and take the offending party before a justice of the peace, or to go before a grand jury with a view to getting indictments. In some parts of mines where men are found working in advance of air, the district inspector has authority to take the men out of the mine. If he finds the mine being operated under conditions that are dangerous to the lives and health of the employees, he is required to notify the operator to that effect, stating that it is his intention to call the attention of the chief of the department of mines to the fact with the view of having him make an examination of the mine to confirm his observations. If the chief of the department of mines confirms his observations he then has authority to close the mine. The operator of the mine has then authority to appeal from that finding to the circuit court of the county in which his mine may be located. I think our law is weak to a certain extent—to a considerable extent—in the matter of getting quick action in the case of dangers that may arise in the mines. I believe that the inspectors should be given more authority in remedying violations of the law and have authority to close a mine immediately upon finding conditions that are dangerous to the lives and health of the men. I think it is far better to err in that respect than to err in the direction of not closing it and having it wait for the courts to act.

Q. I want to ask you, before leaving this branch, what kind of mines are the Stuart mine in Fayette county and the Penco mine at Lorentz?

A. The Stuart mine is a shaft mine and the Penco mine is a drift mine.

Q. How deep is the shaft mine at Stuart?

A. I think it is five hundred and eighty-five feet.

Q. Is a shaft mine more dangerous than a drift mine in its operations?

A. You have some dangers with a shaft mine that you do not have with a drift mine by reason of the hoisting appliances which you have for getting men up and down the mine and hoisting the product or output of the men. It is more frequent that shaft mines have gas in them than drift mines.

Q. Do they have a fan in use at the Lorentz mine?

A. Yes, sir.

Q. Please give us the result of your investigation of the Thomas mine, the character of the mine, the number killed at the time of the explosion, and so forth.

A. The Thomas mine No. 25 is located at Thomas, Tucker county, on the line of the Western Maryland Railroad. An explosion occurred in this mine on February 4th, 1907. I was detained by reason of the Stuart disaster—at the time this mine exploded—and was not able to go to the scene immediately, but I sent inspectors Bratt and Parsons to the mine and they made an examination and made reports to me of their observations. On March 14th I left Charleston with the purpose of visiting and inspecting this mine, but was detained nearly a week by reason of a flood in the Ohio River, and it was the 20th of March when I got to the Thomas mine, and entered it, and made an examination of it. My observations were to the effect that there had been an accumulation of gas in the mine which had been fired by an open lamp of some one or more men who went into the mine to work. From the testimony developed at the inquest, and investigation made by

my inspectors, it developed that about thirty hours prior to the explosion the fan at the mine had been idle and there had been no ventilation in the mine whatever.

Q. Then that explosion was the result of carelessness, was it not?

A. I would judge that that is what would be called carelessness on the part of some person in connection with the operation of the mine. As you may know, one or two of the employes or officials of the company have been held by the grand jury of Tucker county by reason of their supposed inattention to the duties of their office in connection with the explosion.

Q. How many were killed in this Thomas mine explosion?

A. I believe it was twenty-four.

Q. Please give us the result of your examination of the explosion which occurred at the Whipple mine in the New River country on the first day of May, 1907.

A. I learned of this explosion on the evening of May first and left at once for the mine, arriving there at 9:50 that night in company with Inspectors Absalom and Henry and Mr. Clarence Hall of the United States Geological Survey. We immediately descended the shaft and remained in the mine until sometime the next morning. Afterwards I made an examination of the mine to ascertain if possible the origin and cause of the explosion. The explosion resulted in the loss of the lives of sixteen persons, fourteen of whom were killed at the time of the explosion, one dying from injuries on May 4th and another dying from injuries on May 13th. The source of the explosion appears to have been on the first right off the Thurmond entry and the indications were that it may have been caused by the firing of shots that may have been overcharged with dynamite in holes that were drilled in the solid coal. These overcharged holes evidently inflamed the dry dust and any explosive gas that may have been present, and the inflaming of the dust was conducted through a part of the mine, only burning the two men who were working at the face of the first right off the Thurmond entry, as well as burning the two men who died later, who were at the time of the explosion near the stable in the mine. All parts of the mine were not affected by the explosion, as several men continued their work for two or three hours after the explosion occurred. With the exception of the four named, the others met their death by suffocation or by being poisoned with the gasses of combustion. Had these men followed other courses in the effort to get to the bottom of the shaft, there is reason to believe that they might have escaped, but in their effort to get to the bottom of the shaft they came through a part of the mine where the air had been vitiated by the explosion on the first right. After the ventilation had been restored in that part of the mine where the explosion originated, I made a careful examination in different parts of the mine and found evidence of explosive gas in the second right off the Thurmond entry. This gas amounted to about fifteen feet in length, following the end of the entry beyond the last breakthrough. Some gas was found in an auger hole in the face of the first left off the Thurmond entry, but in very small quantity. I found in the first left off the Thurmond entry three holes drilled in the left rib similarly located with respect to each other as the holes that had blown down the coal on the first right off the Thurmond entry, indicating that some of the miners were endeavoring to shoot the coal from the solid. The mine was well equipped for ventilating purposes, having a large fan that gave a large volume of air. There is some possibility of a canvas that was used for conducting air up the first right on the Thurmond entry having been torn or disarranged, permitting the possible accumulation of some gas.

Q. Please state if you made an investigation of mine number six and number eight at Monongah, in which occurred such a destructive explosion on the 6th day of December, 1907, and if so, give the result of your investigation and what, in your opinion, caused the explosion, the number killed, and the initial point of the explosion, and whether or not there was more than one explosion.

A. I did make an investigation and will refer the committee to the copy of my evidence taken at the Coroner's inquest held at Fairmont, commencing on the 6th day of January, 1908.

Q. Should what are known as shots in the solid be permitted?

A. I think they should be prohibited where dynamite or black powder is used, and permitted only where they use an explosive that may by test be proven to be a safety explosive so far as its liability of igniting gas or dust is concerned.



Q. What kind of powder should be used in mines?

A. I believe in the mines of West Virginia that the safety powder,—commonly called flameless powder—should be used.

Q. Do you believe it would add to the safety of the mines to have a different system of drilling, tamping and firing the holes, from what is now practiced?

A. I do.

Q. Now give us your opinion of what would add to the safety and be the best means of bringing about results?

A. Well, a very large percentage of disasters might be eliminated by preventing the use of black powder and dynamite, and where shots are fired, that it should be done under the direction or supervision of some competent mine man, and that incombustible material should be used for tamping purposes.

Q. What would be the best material to use for tamping purposes?

A. Well, a good material that is usually at hand, would be clay.

By Delegate Mitchell: Q. In your opinion is the safety of a mine injured by reason of too great an air current—more than is absolutely necessary for the sustenance of the men?

A. Yes, sir; there is a possibility of too great a current of air passing through a mine being a source of danger to the safety of men in the mine, especially in the cold months of the year. While a large volume of air, properly distributed, may dilute and render harmless any accumulations of explosive gas, that large volume of air passing through a mine has a tendency to absorb any moisture that may be in the mine, especially from the fine particles of coal dust, and render it in a condition that would make it easily inflamed by reason of any intense flame that might be projected into it by shooting or by the accidental discharge of an explosive in the mine or by the firing of a small accumulation of gas in any part of the mine. But just at what point to limit the volume of air I am unable to determine. That danger of a large volume of air where it would be needed for the proper ventilation of the mine and to dilute the gas that may be liberated, could be remedied only by adding moisture to the air as it goes in the mine and to do that it would involve the necessity of heating the air up to a temperature where it would be able to carry in suspension a sufficient volume of moisture that would enable it to deposit some of that moisture on the different exposures in the mine. That would necessitate the temperature of the air being at a temperature higher than the normal temperature of the mine.

Q. Speaking of inflaming the dust: Do you allude to that dust in the air or that which has settled on the ribs and on the bottom and at the top of the mine?

A. It would have reference primarily to the dust that would be in suspension in the air. That once inflamed would dislodge the dust from its location on the ribs and timbers, and that in turn would be inflamed also.

Q. In your opinion would a low temperature in a mine tend to prevent the giving off of gas by the particles of coal?

A. Relatively it would, for the reason that coal or dust when raised to a certain temperature begins to give off part of its volatile gasses and for driving off the volatile gas in coal it is usually kept at a temperature of at least one hundred degrees Centigrade for a period of an hour to dispel its moisture, and then it is raised to a much higher temperature for a period of from five to seven minutes; but after having passed the one hundredth degree mark, then you begin to have the gasses liberated.

Q. In your opinion is there such a thing as a dust explosion?

A. I believe there is such a thing as a dust explosion, the same as a powder explosion.

Q. The ignition of the particles of coal would immediately raise the temperature within a mine, wouldn't it?

A. Yes, sir.

Q. And the result of that would be the liberation of gas from the particles, would it not?

A. Yes, sir.

Q. You draw a distinction between ignition and explosion?

A. Yes, sir.

By Senator Kidd: Q. Mr. Paul, are these explosions more apt to occur in the winter season than in the summer, fall or spring?

A. The history of explosions confirms that fact—that they do occur more frequently during the cold months.

Q. Can you explain why that is true?

A. My explanation made a few moments ago in reference to the humidity of the air would answer that question.

EARL HENRY, a witness of lawful age, having been first duly sworn, testified as follows:

### Testimony of Earl Henry.

Examination by Senator Kidd:

Q. What is your occupation?

A. I am District Mine Inspector of the Fifth district.

Q. How long have you been in such employment?

A. About seven years.

Q. What experience have you had in practical mining?

A. I have been engaged in mining in one position and another for the past thirty-seven years.

Q. Now, please state if you were called upon last winter to go to the Stuart mine, in the New River field, and make an examination of that mine after the explosion?

A. I was.

Q. How long were you engaged in that investigation?

A. I could not say as to the time I was there, but it was from the time the investigation began until it was completed and the inquest held.

Q. Will you state if you reached a conclusion as to the cause of that explosion, and if so, what was such cause?

A. In my judgment it was a gas explosion.

Q. You may state if you discovered any evidences of carelessness in the management of that mine?

A. No, sir; I had not been in the mine prior to the explosion and I had no way of judging of any carelessness by the conditions I found in the mine after the explosion, except that there was only one opening to the mine.

Q. Were there any evidences that there was more than one explosion in that mine?

A. Well, I could not say positively as to that: there could have been some local explosions.

Q. Mr. Henry, I will ask you if you discovered any gas upon your investigation of the Stuart mine?

A. Yes, sir: quite a quantity of it.

Q. Had you any information of the appearance of gas in that mine prior to that explosion?

A. Not at that time I had not; I have since then had information.

Q. Well, from that information was there evidence of gas in there prior to the explosion?

A. There was standing gas.

Q. The machinery and appliances at the Stuart mine were good, were they not?

A. They were.

Q. And was the fan ample and sufficient to diffuse the air throughout the entire mine?

A. If the distribution of the air was properly conducted it was fully ample.

Q. In the arrangement of that mine what have you to say about its being in good condition, and so on?

A. Well, in my judgment the mine was in very good condition, with the exception, as I stated, of not having a second opening.

Q. As you learned, they were working a good many more men than the law permitted with one opening, were they not?

A. Yes, sir.

Q. From whom did you get the information that there had been gas in the mine prior to the explosion?

A. Mr. C'burn, the gentleman who was superintendent of the mine at the time of the explosion.

Q. Had it been there to any appreciable extent?

A. He stated to me that there were two rooms on the Bradley entry, about one hundred and fifty feet deep, full of standing gas, and that he sent one of the laborers in that morning to put in brattice cloth and remove the gas, and that he was found in that place after the explosion and had not started to work yet to remove the gas.

Q. Was there any evidence that that gas exploded at the time of the explosion?

A. Yes, sir; there wasn't any gas in the mine, that we could find, that had not exploded, I do not think. It seemed that it reached all parts of the mine where there was likely to be any gas.

Q. I will ask you this: In the mines of this State that you have examined in your official capacity, if you believe that there is care enough taken to safeguard the property and the lives of the miners on the inside of the mines?

A. Well, no; I do not think there is, in many instances, the care taken that should be.

Q. Isn't there a spirit of carelessness in a great many of those mines?

A. Carelessness and ignorance as to danger, combined; yes, sir.

Q. Is it not a fact that many foreign laborers who are employed care but little about the lives of their fellow-workmen and in fact but little about their own lives?

A. I have found that to be the case in many instances.

Q. Now what steps are taken by the operators in the coal fields you have visited to counteract that tendency, or that carelessness?

A. Well, I have not in my district but few of the foreign element and they are under charge or looked over by the mine boss and his assistant.

Q. An inexperienced man then is placed in charge of an experienced one, is he, until he learns the business?

A. Well, not fully in charge; he is instructed to some extent.

Q. Are inexperienced men permitted to drill and fire shots in the mines?

A. Yes, sir; in my district.

Q. Do you regard that as dangerous?

A. I certainly do.

Q. Would you suggest then that there be some rules or some law enacted to prohibit anything of that kind and to make them more careful about it?

A. I think that an impractical miner should be taught how to place his charges of powder or use safety explosives.

Q. And could these ends be met by giving more power to the mine department?

A. I think so.

Q. Different mining sections of the State have different conditions to deal with, do they not?

A. Yes, sir.

Q. And what would be good for one, and safe, might not fit another section of the State?

A. Yes, indeed.

Q. So it would be difficult to draft a law to meet all of these conditions, would it not?

A. Why, I think it would be impossible to draft a law that would meet all conditions that exist throughout the State.

Q. But this could be remedied, could it not, by lodging certain power in the mine department?

A. I think they should have more discretionary power as to the conditions existing throughout the State.

Q. I will ask you if it is not a fact that the chief desire seems to be as to the amount of the output of coal rather than the preservation of property and human life, in some sections of this State?

A. Yes, sir.

Q. Everything seems to be moving with a mad rush, does it not?

A. In some sections.

Q. What about the employment of superintendents and fire bosses and mine bosses? Do you usually find competent men occupying those positions?

A. Not generally.

Q. Is there that care or diligence used that ought to be?

A. In many instances it is not.

Q. Do you think the bringing of the operators and miners together and having some instruction along these lines, occasionally, would be beneficial to the mining industry of the State?

A. It certainly would, as I think education in any trade is beneficial.

Q. In your sub-division of the State have you any of the union miners?

Witness: You mean as to my district?

Senator Kidd: Yes, sir.

A. The principal part of them are organized.

Q. I will ask you whether or not where these miners are in a union if they look after each other's welfare more carefully than they would if they were not organized or not in a union?

A. I cannot say as to that; I pay very little attention to union and non-union; it is not in my line.

Q. But are they not more apt to report any want of diligence or carelessness to headquarters, in an organization?

A. They are pretty apt to report, in my district, if there is anything wrong, where they are organized.

Q. Mr. Henry, have you any information that in the Stuart mine, when they were expecting the district mine inspector to be there, that they removed some men so that there would not be more than the number covered by the law?

A. There was a statement made to me to that effect by the superintendent a short time ago.

Q. That the force was reduced that day?

A. That he knew the inspector would be there on the following morning and that he had a train set the empty cars away from that mine at 12 o'clock at night, and the following morning he sent fifty odd men home, as there would be no work, and his reason for so doing was that the inspector would be there and he did not want him to find more than twenty persons in the mine.

Q. Now, as to that twenty, they might have twenty on in the day and twenty at night?

A. Not more than twenty persons at any time, in as many shifts as they might desire to work.

By Chairman Gartlan: Q. You say you got that information from Mr. Coburn?

A. From Mr. Coburn, who was the mine superintendent at the time of the explosion.

Q. Did I understand you that Mr. Coburn informed you that there was gas in two rooms before the explosion?

A. Yes, sir; and that he knew that was the cause of the explosion.

Q. We have it here in this statement—given at the State House—that there was no gas?

A. Well, now, the statement I have given you is the statement he made to me.

By Senator Kidd: Q. Now, at the time he made this statement to you was any one present?

A. Yes, sir; Mr. D. R. Phillips, from Bramwell, was present and Mr. Coburn voluntarily made that statement.

By Chairman Gartlan: Q. Is he in the employ of the Stuart Colliery Company now?

A. No, sir.

Q. Was his statement to you made before he left the employ of the company?

A. It was after he left the company.

Q. You have been at several explosions in different parts of the State, have you not?

A. Yes, sir; I have.

Q. What have you found with regard to experienced miners working at the place that was the immediate cause of the explosion; for instance, at the Whipple mine? Do you know how long those people had been there and whether they had any experience or not?

A. No, sir; only from the evidence I heard at the inquest—that they were experienced men.

Q. In the Stuart mine explosion it seemed to have originated in the last entry. Have you any information in regard to the experience of the men who were working in there?

A. Nothing only the statement made at the inquest—that he was a miner of twenty-four years' experience.

Q. In any mine explosions have you found out that it has been because of any inexperienced miners working there?

A. Not to my personal knowledge; only from information at the inquest; and the information I got was that these men were practical.

Q. In nearly every instance the men at the immediate seat of the explosion were experienced men?

A. According to the evidence; yes, sir.

By Senator Kidd: Q. I will ask you if it is not true that men in all employments, the more accustomed they get to it the more careless they are about the danger connected with it?

A. Well, that holds good in some instances and in some it does not.

Q. But it is a dangerous thing to put the welfare of a mine in the hands of inexperienced men, is it not, to blast, drill and shoot?

A. It certainly is.

Q. Have all these men competent and experienced superintendents?

A. Well, I have visited a great many mines where I did not think the superintendents were competent, or the mine bosses either.

Q. Well, would not an experienced mine boss be hampered in the discharge of his duties if the superintendent was an inexperienced, impractical man?

A. He would if he interfered with the mine boss's business in any way.

Q. In your opinion, Mr. Henry, do you believe that it would add to the safety of the mine for the mine boss to be an employe of the State and required to pass a thorough examination as to his competency and fitness?

A. I think it is a good idea to know as to a man's competency and fitness, but if there is not some penalty to make him execute the knowledge that he has, then an examination would not be of much benefit.

Q. State whether or not it would add to his efficiency if he was in the employ of the State and not of the operator?

A. Not without some bond or penalty.

Q. You would still want a penalty attached for non-performance of his duty?

A. Yes, sir.

Q. Well, with the same penalty attached that might be attached to an employe of the company itself, would it not be better to have a State official? Or, in other words, that this mine boss should be selected by the mine department of the State and be in the employ of the State?

A. I think he should be examined by the department but I do not take very kindly to his being employed by the State.

By Chairman Gartlan: Q. If you had a mine and were operating it yourself would you care to have a mine boss in the employ of the State to superintend and run it?

A. No, sir; I would not want him.

By Senator Kidd: Q. You would prefer to select your own men, wouldn't you?

A. I certainly would.

Q. I suppose you would prefer to select your own State mine inspector, too. If you were running one?

A. No, sir; I would feel if I was operating a mine and complying with the law that I would have no reason to fear the mine inspector.

Q. Most of these operators have mine inspectors in their employ, haven't they?

A. Not to my knowledge; but a few.

Q. Over in the Fairmont district they have for several mines?

A. Yes, sir.

Q. Have they not in the New River field to some extent?

A. On one occasion I heard of them having a man for that purpose and I have since heard that he was dispensed with.

Q. What is the extent of your territory, or your division?

A. I have Mason county, Putnam county on the north side of the river, Kanawha, Clay, Braxton, Gilmer and eleven mines in Fayette county.

Q. Well, that keeps you pretty busy to give it proper care, doesn't it?

A. I cannot give it proper care no matter how busy I am.

Q. In your opinion should there be more deputy inspectors?

A. Yes, sir.

Q. And less territory?

A. Yes, sir; there should be if they want to get results from their work. It is a physical impossibility for a man to look after the work that he is expected to do.

By Delegate Mitchell: Q. How often do you inspect the different mines?

A. It depends altogether on the condition of the mine. If there are any dangerous conditions I visit them as often as I think it is necessary and let the others go that are not dangerous.

Q. How often do you examine mines in your district?

A. I have been in some of the mines in my district—not on a regular inspection but on investigation—as often as twelve times a year, and some I have not been in but once in a year.

Q. Mr. Henry, to what extent should brattice cloth be used in a mine?

A. Well, that depends largely on the quantity of gas and the capacity of the fan to furnish air.

Q. Well, to what extent then should it have been used in the Stuart mine?

A. All places that were generating gas in noticeable quantities should have had brattice cloth, from the last cross cut and face, to dilute and carry off the gas—near sections, rooms and headings.

Q. Have you any knowledge or opinion in regard to the extensive use of brattice cloth in those mines?

A. No, I have not; because I only was in the mines after the explosion when practically all the conditions were destroyed.

Q. Had you a conversation with Mr. Sam Dixon in regard to his using too much brattice cloth?

A. I had.

Q. And so informed him?

A. I judged from the information that I had from the Whipple that they used too much brattice cloth and not sufficient stoppings. You will understand, Doctor, when I say "used too much brattice cloth," that I mean in temporarily closing up cross cuts.

Q. And that those cross cuts should not be temporarily stopped with brattice cloth when they could put in something more permanent—is that it?

A. That is it.

Q. How about the use of brattice cloth in deflecting the current along the haulways?

A. I do not see where there would be any advantage in using brattice cloth for that purpose.

Q. Have you no knowledge of any such instance in which they used cloth simply suspended from the ceiling of the room so that a mule could readily pass through it?

A. I do, in several instances, know where they use brattice where a door should be, which is poor practice.

Q. Is it not a dangerous practice?

A. In gaseous mines it would be a dangerous practice—very dangerous.

By Delegate Strickling: Q. In your examination of various mines in the last year, in your district, have you found that the operators are living up to the law?

A. Not in a general way; as to the law requiring check doors and over-casts, it has not been complied with. But most of them are making preparations to comply with it.

Q. In other respects are they generally living up to the law?

A. Where I keep after them and push them up there are some of them do, and some of them not only live up to it but are possibly in advance of the law.

Q. Have you ever visited a mine in your district wherein you found that there were a great many faults to correct?

A. Not a great many faults but we usually find some neglect or carelessness in the conducting of the air, principally, in my district.

Q. It is principally in the conducting of the air rather than in non-compliance with other parts of the law?

A. Yes, sir.

Q. How about the men—the laborers? Are they living up to the laws, rules and regulations, so far as you can ascertain, in the amount of powder, and so forth?

A. Yes, sir; they are living up to them exceptionally well in my district. Once in a while I find a man who is violating the law, but very seldom.

Q. When you call the attention of operators to their dereliction in complying with the law, do you find that they readily fall in with your suggestions and correct the fault?

A. I seldom meet with any opposition in my district but they are sometimes a little slow in getting the work done.

On motion of Mr. Kidd, the committee adjourned until tomorrow, Friday, January 24, at 10 o'clock a. m.

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#### JANUARY 24 1907.

The Committee met pursuant to adjournment. All the members were present together with the Secretary and Sergeant-at-Arms.

There were also present Senator W. W. Whyte, Mr. W. D. Ord, manager of the Empire Coal & Coke Company; Mr. James Elwood Jones, manager of the Pocahontas Consolidated Collieries Company; Mr. L. E. Tierney, manager of the Fowhattan Coal & Coke Company; Mr. E. Kelley Rothstein, of the Davis Coal & Coke Company; Mr. Edward Schonebaum, superintendent of the Otto-Marmet Coal & Mining Company; Mr. D. T. Evans, superintendent of the Mount Carbon Company, Limited, and Mr. Malcolm Jackson.

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The witness, J. W. PAUL, being recalled for further examination, testified as follows:

#### Testimony of J. W. Paul.

Examination by Senator Kidd:

Q. Mr. Paul, I will ask you what if any connection, in your opinion, the runaway cars at mine No. 6 at Monongah had to do with the explosion that occurred there at or about that time?

A. My judgment is that the runaway trip had reached the bottom of the slope at the time of the explosion and it is possible for it to have been an important factor in connection with the explosion. The runaway trip consisted of nineteen loaded cars which were badly wrecked and demolished. There would have been a large volume of dust put into suspension in the air at that particular locality and there were open lights at that point, and there was a probability of the arcing of the electrical wires which were torn down by the runaway trip, either one of which would have been sufficient to have ignited the dust. That dust being inflamed would have a tendency to continue on in the mine, stirring up other dust that might be on the pavement and on the exposures, and in turn inflaming it, and in connection with the inflaming of dust in a mine, my observation at mines has been that as a dust explosion travels it gains force and violence. That will have a tendency to create a connection or compression of the air throughout the mine and would cause other sections of the mine to be made into a condition that would be favorable for a local explosion in the presence of an open light or in

the event of a hole in the coal being fired that might be overcharged with powder.

Q. Then the two causes acting together would be more apt to create an explosion than either would alone, would it not?

A. Yes, sir.

Q. Then this explosion may have been caused by the disturbance of the conditions in these two mines by this runaway trip in connection with the blown out shot to which you refer, may it not?

A. Yes, sir.

Q. In your opinion was not the combination of these two forces the immediate and direct cause of that explosion?

A. It is very probable.

Q. Did you examine the condition of the cars to ascertain the cause of that runaway trip?

A. I examined the cars that were there when I entered the mine.

Q. To what was the runaway attributed?

A. To the breaking of a coupling pin which connected with the rope socket and drawbar of the first car.

Q. Well, did you examine that coupling pin?

A. I did.

Q. Was it defective in any way?

A. It did not show any evidence of any defect.

Q. Then it showed no carelessness upon the part of the people managing the cars, did it—the breakage?

A. The pin, from the point at which it was broken, would indicate that it had not been properly inserted in the clevis.

Q. Then there had been some carelessness upon the part of some one?

A. Whether that pin was improperly inserted at the bottom of the slope or whether it worked up and out on its way up the slope I would not be able to say.

Q. If properly inserted it was of sufficient strength to have performed its duty, was it not?

A. I would think so.

Q. I will ask you this question: Upon your examination of these two mines, after the explosion, if you found large quantities of dust scattered throughout the two mines in the various rooms therein?

A. I found large quantities of dust, especially on the entries and in some instances in the mouths of the rooms, that appeared to have been drifted there by the force of the explosion.

Q. Then that dust was largely created, was it, by the force of the explosion?

A. It is likely that some part of that dust had been created by the violence of the explosion.

Q. Now, in your opinion, from your examination, Mr. Paul, were there a series of explosions following the first explosion?

A. That is my impression and judgment—that there were several secondary explosions.

Q. Well, now, those secondary explosions, then, would add to the force of the main explosion as they went in one direction, would they not?

A. Yes, sir; or they would have the effect of counteracting the effect of the general explosion.

Q. As it came in contact the other way?

A. Yes, sir.

Q. Now I will ask you this question: If at the point "A" the main explosion occurred [indicating on sheet of paper], the force of that explosion would go in each direction where there was no strong resistance, would it not?

A. Yes, sir.

Q. Well now, as it went from A to B and created the secondary explosion at B, as that explosion came back from B towards A it would decrease the force of the original explosion, would it not?

A. Not necessarily.

Q. It would unless all of that force had reached A before the secondary explosion, would it not? In other words, would there not be a counter force coming from B back towards A created by the secondary explosion?

A. There would be a counter force that would act as an acceleration.



Q. Now, going on towards D, the two forces would combine and augment the force?

A. Yes, sir.

Q. Now, if the mine had been reasonably free from dust, these secondary explosions would not have occurred, would they? Or in other words, if proper care had been taken in eliminating the dust from the mine, would the secondary explosions have occurred?

A. If the dust had been removed from the mine and those parts of the mine that were dry had been made wet with water, I do not think that the explosion would have been general.

Q. From your examination, so far as you could ascertain after this explosion, give us your opinion as to the quantity of dust in these two mines at the time of the explosion—whether it was in dangerous quantities or otherwise?

A. I would think from the quantity of dust that I found throughout the mine that if it should be uniformly distributed throughout the mine, and that quantity had existed prior to the explosion, that it would have been in there in dangerous quantities.

Q. Now, I want to ask you something about watering mines: Do you not believe that it would be a good idea—especially where you use machinery for cutting under the coal—to have some means of sprinkling a room before the shots are fired?

A. I am very decidedly of the opinion that where black powder is used in firing shots that the dust in the mines should be watered.

Q. Would it be very expensive to have proper appliances to water these places?

A. Not necessarily, where they have electricity, for the reason that a car could be easily equipped with a pump and it could be run by the electric motor.

Q. And such watering, in your opinion, would add largely to the safety of the mine, would it, where black powder is used?

A. Yes, sir.

Q. Do they not have such a system in some of the old countries?

A. Personally I do not know, but I understand from authorities that they have systems of that character, or use pipes and hose for conducting the water into the mine, and we have that system in several mines in this state.

Q. I have in my hand what is called "Coal Mine Accidents, Their Causes and Prevention", written by Clarence Hall and Walter O. Snelling, with an introduction by Joseph A. Holmes, recently published, in which they say: "The watering of the sides and roof of coal mine passage ways has been found to be of material benefit in preventing local ignition of coal dust from becoming general. The watering prevents the coal dust from being stirred up by a small explosion and the reduction in explosive properties of the wet coal dust has the general effect of preventing an explosion from traveling into other workings. As dust explosions gain in destructive effect the farther they travel, it is believed that the thorough watering of zones greatly reduces the destructive effect of such explosions." I will ask you, Mr. Paul, if from your investigations and study of these subjects this view so expressed by them concurs with the views you entertain upon similar subjects?

A. They do.

Q. They further say in the same pamphlet: "The watering is effected by means of sprinkling or spraying devices of various kinds. Specially constructed nozzles are in use, particularly in Germany, which produce a fine spray of mist by means of watering under pressure, so that the air is thoroughly moistened". Now, would not an appliance of this kind be comparatively inexpensive?

A. It would only involve the cost of the material and the labor of putting it into place.

Q. Well, that would be less expensive to the operators than an explosion would be, would it not?

A. Yes, sir.

Q. Mr. Paul, I will ask you if the system of blasting or shooting this coal can be improved upon?

Witness: In the Monongah mine?

Senator Kidd: In any mine in the state. I am speaking now in general terms.

A. I think that a number of improvements could be made in the system of mining coal in the manner in which it may be undercut and in the manner in which it

is shot down, both with respect to the character of the coal produced and to a greater degree of safety.

By Delegate Duty: Q. As the trip was running away at that Monongah mine was it going with the current or against it?

A. It was going with the current.

Q. Were there any devices there to prevent those cars from going clear down the slope in case of accidents?

A. Yes, sir; there was a derailing switch just on the outside of the entrance to the slope.

Q. Was that in charge of some one, or supposed to be?

A. The evidence I heard at the investigation at Fairmont before the coroner was to the effect that it was in charge of a man at that point, but the switch was closed at the time the trip ran down.

Q. Then if he had been there at his post, doing his duty, it would have prevented the runaway?

A. It would probably have prevented the trip from going into the mine.

Q. Was the trip automatic or how was it worked?

A. The derailing switch was worked with a lever and it would be necessary for a man to operate it.

Q. Do you believe, Mr. Paul, that the law requires a greater amount of air in mines than is necessary?

A. The law does not require a greater amount than is necessary but we have mines that put more air into the mine than the law specifies.

Q. Do you think it adds to the danger of explosions to put this large amount of air into mines—more than is specified by the law?

A. It does, under certain conditions, unless certain precautions are taken in connection with the large volume of air.

Q. What are these conditions that would make it more dangerous?

A. During the summer months you would not have any danger in putting excessively large volumes of air through a mine, but in the cold months a large volume of air has a tendency to absorb the moisture in the mine; whereas, in the summer time it deposits its moisture throughout the mine, and in order to overcome the action of the air in the winter time, it would be necessary to add moisture to the air to raise its temperature so that in coming in contact with the colder surfaces in the mine, it would deposit a part of its moisture. That might be accomplished by conducting the volume of air through some worked-out section of a mine by which it would have its temperature increased, and then after having increased its temperature, live steam could be introduced into the air. You cannot add moisture to the air only to a certain degree of saturation, dependent upon its temperature. Warm air will carry in suspension a much larger quantity of moisture than cold air.

Q. Taking the Monongah mines into consideration, and the character of the coal and the method of operating, has that a tendency to create a great amount of dust?

A. Yes, sir; the use of mining machines for cutting the coal creates a large quantity of fine dust that is put in suspension in the air, and the loading up of the machine cuttings into cars, without previously having made them wet, puts into suspension a large volume of dust. Then the coal being high, it necessitates a heavy charge to blow it down and break it up, whereas if the hole should be undercut with a pick, it would not necessitate such a heavy charge.

Q. The evidence at the coroner's inquest seemed to establish the fact that there was no particular time—after loading up the dust—until the shot was fired. Do you believe that there is danger of explosion directly after loading up the dust?

A. The danger is much greater to fire a shot immediately after loading up the dust than it would be to allow some time to elapse.

By Mr. W. D. Ord: Q. Mr. Paul, you stated in your testimony there that naked lights were present at the bottom of the slope and you intimated that there was a possibility of igniting the dust from those lights. I want to ask you if you have ever known a case where it could be positively asserted that coal dust had ignited by the flame of a naked light?

A. You can see almost daily demonstrations of that at Underwood, Marion county, on the outside of the mine, at the tippie, where the coal dust going into the mine occurs, being raised in a cloud of dust, and coming in contact with a gas light, that it frequently becomes inflamed. About four weeks prior to the explosion in

the Monongah mine four cars ran away down this same slope and stirred up the dust there and it was ignited, and the men were compelled to throw themselves on the pavement to keep from being burned.

Q. There was no possibility of there being gas given off from these cars. You are sure that it was dust?

A. It was at a point where they had about ninety thousand cubic feet of air passing per minute and within eight hundred feet of the outside of the mine, through a rock slope.

Q. Was that in the intake or outlet?

A. It was in the intake.

Q. Governor Fleming makes this statement: "It has been definitely shown that the trip could not have gotten to the foot of the slope at the time the explosion occurred". I want to ask you if you have any definite knowledge of the evidence on which Governor Fleming made that statement?

A. I do not know upon what authority the Governor made that statement unless it might have been from the evidence that he heard at the coroner's inquest at Fairmont. There was some testimony given to the effect that the trip had not had time to get to the bottom of the slope before they saw evidence of an explosion at No. 8 mine. There was other evidence, given by men who were at the mouth of the slope when the trip went into the mine, and their testimony was that the trip had passed down probably half a minute or a minute prior to the force of the explosion coming out of the mine, knocking them down and injuring them.

By Delegate Mitchell: Q. Were there intakes to that mine other than the slope?

A. Yes, sir.

Q. How many of those intakes were there?

A. In No. 6 mine there was another intake similar to No. 6 slope in which they took in about half of the air for ventilation.

Q. Did you become acquainted with the conditions at the foot of the slope created by the derailling of those cars at that point, previous to their removal?

A. I did, through personal examinations made and from testimony that I heard.

Q. Was it true that at any time during the existence of that wreckage there, that the slope was completely obstructed to prevent the intaking or coming out of the air?

A. The evidence of the condition of the wrecked trip was to the effect that it almost completely plugged the entry, leaving sufficient space for a man to crawl over. That blocking of the airway at that point was indicated on the recording pressure gauge at the fan.

Q. Did you mean to indicate that the foot of the slope was the initial point of the explosion, in your evidence here, Mr. Paul?

A. I endeavored to state in what way I thought that the trip may have been an important factor in connection with the explosion.

Q. In the event of that being the initial point of the explosion, is it not true that evidences of an explosion would have become manifest at the opening at No. 6 earlier than that at No. 8?

A. Not necessarily; for the reason, as I have explained, that the dust may have become inflamed at that point and traveled in the mine, gaining force in its travel, and it may have traveled some distance into the mine in an inflamed condition before it would have reached the point where the explosion might have occurred.

Q. Then you only alluded to it as the point at which it was possible that ignition could have first occurred and not as the point at which the explosion first occurred?

A. Yes, sir.

By Delegate Duty: Q. Mr. Paul, what is your best judgment as to the actual point it did occur?

A. Well, judging from the mechanical destruction in the mine it would appear that the explosion may have originated at the face of the third left entry of the second north in No. 8 mine.

Q. Why do you think it occurred there?

A. The evidence was that on the morning of the explosion the face of the entry had been cleaned out and there was no coal there. There were several rooms just opened from the entry and driven in a very short distance. We found after the

explosion that a shot had been fired in the face of this entry that had blown down part of the coal, but there was a large part of the hole still remaining in the coal. It had the appearance of a blown out or overcharged shot. There were one or two other rooms near that point where we found coal had been blown down and there had been no part of it loaded up. We found back from the face of the entry—just inside of the neck of the room—six men congregated, and in the adjoining room there were five men, which would lead me to believe that those men had retired to those places to be in safety while those shots were being fired. Those conditions, in connection with the mechanical destruction that was in evidence, going from the mouth of this entry towards No. 6 mine, and also towards No. 8 mine, would be conclusive that the most violent force had radiated from this entry.

Q. From the general appearance of the mine at that point, after the explosion, was it sufficient to convince you that it did radiate from this point?

A. Yes, sir.

By Delegate Mitchell: Q. Mr. Paul, is the fact of there having been great mechanical force exerted at a certain part an evidence of the origin of the explosion at that part?

A. No, sir; and that was not the condition of this entry. The evidence of violence at the head of the entry was very mild, but it increased in violence as it came out of the entry.

By Mr. W. D. Ord: Q. Mr. Paul, you have cited a case where, in your opinion, coal dust, without any moisture or anything else, was ignited by the flame of a naked lamp. I want to ask you if it is your opinion that all coal dust may be ignited by such a flame or if it requires a coal dust of special characteristics in composition?

A. I do not believe that all coal dust will be inflamed by contact with an open lamp. I think it requires a coal dust of a certain physical and chemical composition to be inflamed by an open lamp.

A. Mr. Paul, in such an explosion as this, isn't there a great latitude of difference of opinion among experts as to the initial cause of the trouble?

A. That would depend largely upon whether or not an expert would give evidence from his observations or from information that he may have in reference to the causes of such explosions. We sometimes find experts who do not believe that dust will explode and we find other experts who believe that it will.

Q. Then it is not so much a question of observation as it is a question of information?

A. Information and faith.

Q. Can you conceive of the possibility of the Monongah explosion having occurred without any reference whatever to this trip?

A. Yes, sir; I believe that in the absence of the trip being a factor in it that the conditions as I have just related them—in the third left entry—would have been sufficient to have caused at least a local explosion in a part of the mine.

By Delegate Strickling: Q. Has your department encountered many mines that your district inspectors have deemed dangerous on account of the presence of dust?

A. They have in a great number of instances reported mines that were dusty to the extent that they gave instructions to the management of the mine to take out the dust and to water it.

Q. To what extent have the instructions of the district mine inspector been obeyed, so far as you know, by the operator?

A. I think that the instructions have been pretty generally observed, or attempt has been made to observe them.

Q. Has your department found any difficulty in enforcing your regulations as against the operator?

A. We do not make regulations against the operator.

Q. Well, I mean this: Has your department encountered any difficulty in enforcing the law, so far as the operators were concerned?

A. We have in a number of instances.

Q. In what particular instance have you encountered the most difficulties?

A. One of our most recent difficulties has been an effort to eliminate steam locomotives from mines and the court—the justice's court—has decided against the judgment of the mine department. It has been about four days since that case was decided by the justice.

Q. Is the same company still using steam locomotives?

A. I take it that they are.

Q. Do you regard it as dangerous?

A. I regard it as dangerous to the health and safety of the men by reason of the inhaling of the fumes and gasses that are emitted by the locomotives.

Q. In what section of the country are these locomotives still used?

A. On the line of the Norfolk & Western railroad.

Q. Do you have any other particular trouble with the operators in attempting to have the law complied with?

A. There is some laxity on the part of the operators of mines in making prompt reports of accidents that occur at the mines and we have had some difficulty in having some operators to drive their breakthroughs as the law requires, or to use brattice for ventilating purposes. We have had some cases where the inspectors have taken men out of the mine and the management has put them to work again in the same place under the same conditions.

Q. In this instance, what were the men taken from the mine for—for what particular dereliction?

A. For the reason of their working in a part of the mine where there was not sufficient ventilation. In some instances we have prosecuted the persons and we have prosecutions in the courts at the present time for those violations.

Q. Have any accidents been reported to you where men have been killed or hurt by the use of the locomotives in the mines?

A. In my time we have had men killed by locomotives in the mines, but I would have to use the records of my office to determine just when the most recent fatality occurred by reason of locomotives.

Q. Could you say in a general way whether there have been many fatalities or just a few?

A. No; I would say there have not been many.

By Mr. Malcolm Jackson: Q. Mr. Paul, do you not find the operators in general in the state desirous of co-operating with your department in making their mines safe and obeying the laws?

A. That is the general disposition on the part of the operators as I find it in their expressions of willingness to comply with the law and the rulings of the mine department; but I understand that the encouragement is not at all times given to their inside employes that they usually give in order to be consistent with their expressions to the inspector.

Q. How many instances do you know of, Mr. Paul, in which any operator has expressed to you a desire to comply with the law and at the same time—as you intimate, by directions to employes—has interfered with the operation of the law?

A. I think you could get a more definite expression on that point from some of our district inspectors.

Q. Does your department keep a record of what are claimed to be violations of the law by the operators?

A. The department keeps a record of the reports as they are made by the different inspectors of the condition in which they find a mine, and if there is a violation of the law, they note it on their reports, at the same time calling the attention of the management of the mine to these violations, with instructions to remedy them.

Q. Is it the duty of your department if you find the law violated to have prosecutions instituted?

A. Yes, sir.

Q. How many prosecutions has your department instituted in the state?

A. I could not tell you the number off hand.

Q. Within the last year how many do you think, Mr. Paul?

A. I presume in the neighborhood of—well, it might be under fifty prosecutions.

Q. Against how many operators?

A. Probably a dozen.

Q. How many convictions have you secured?

A. We have secured a great many convictions against employes but very few against the operators.

Q. Now these prosecutions that you speak of—the fifty—do any of those include prosecutions against employes?

A. Yes, sir.

Q. I believe you stated, Mr. Paul, that you had last year about a dozen prosecutions against operators.

A. Well, that would be officials or would include the officials of companies.

Q. About a dozen altogether?

A. Yes, sir.

Q. Mr. Paul, has your department made an inquiry along the line of ascertaining from the operators the difficulties they meet with in getting their employees to obey the mine law?

A. Yes, sir.

Q. They have troubles that way, have they not?

A. That is my information.

Q. Mr. Strickling asked you about accidents in mines from locomotives. Was your answer confined to steam locomotives?

A. Yes, sir; it was confined to steam locomotives.

Q. Well, the question of accident don't enter into the objection of your department to the use of steam locomotives, does it? It is a question, as I understand, of ventilation?

A. No; it is not a question of accident to a man by being run over by a steam locomotive that the department objects to.

Q. It is a question of ventilation?

A. It is on the question of the gasses that the locomotives put into the atmosphere.

By Delegate Strickling: Q. Mr. Paul, in speaking of prosecutions, where have those prosecutions generally been instituted—in justices' courts or in the circuit courts?

A. Usually in justices' courts. Our law is that we can take any violator of the mine law before a justice or before a circuit or criminal court.

Q. Has your experience been such as to enable you to form any opinion as to whether the environment has anything to do with the conviction of operators in justices' courts?

A. Well, I would judge so, yes, sir; in some instances.

Q. One more question: You speak of the fact that you found the companies, to some extent, were a little inconsistent as to their actual workings compared with their declaration of support of the department in complying with the law. What do you mean by that?

A. We find, for instance, that an inspector sometimes makes a recommendation and the management of the mine may acknowledge his recommendation and agree to have it properly executed, and may communicate that recommendation to one of his under officials who has authority to put into execution the recommendation; and the inspector, upon returning, finds that the recommendation has not always been complied with. That might be due at times to a lack of sufficient labor; or it may be due to the fault of the men in charge of the mine.

Q. One more question: Does your department feel any confidence in instituting criminal proceedings against operators before the various justices of the peace in their districts, and securing a conviction?

A. Not throughout the State.

By Mr. Malcolm Jackson: Q. I believe you stated it was a matter of choice with your department whether you would go before a justice or a criminal or circuit court and that you have the right to select?

A. Yes, sir; but we get the quickest action through the justices' courts, for the reason that in other cases you have to go before a grand jury and obtain indictments.

Q. Is there any reason why the prosecuting attorney could not file an information without an indictment by a grand jury?

A. I am not sufficiently informed as to the provisions of the law in that respect. I have no record in my office where an effort has been made to interest the prosecuting attorney in prosecutions against companies for which he was attorney, and that may be a little uphill work.

Q. Do you know any case in which any prosecuting attorney refused to do his duty because of his connection with the operator?

A. No, sir. The department is on record. I might say that there are several indictments that are becoming ancient history and have never come to trial.

By Delegate Strickling: Q. Has the department made any effort to have those cases tried?

A. The matter has been called to the attention of the prosecuting attorney and the department has placed itself and its services at the disposal of the prosecuting attorney, or his court.

R. S. LARUE, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of R. S. LaRue.

Examination by Senator Kidd:

Q. State your occupation and what position, if any, you hold?

A. I am Deputy Mine Inspector of the First mine district of this State.

Q. How long have you held that position?

A. Since the first of last July.

Q. What territory is included in your district?

A. I have Marion county, Marshall, Brooke, Ohio and Hancock. Those are the only counties that have coal in them to mine.

Q. Were mines No. 6 and No. 8 at Monongah, where the recent explosion occurred, in your territory?

A. Yes, sir; they were.

Q. You may state if at any time prior to the explosion you had been in those mines and examined the same, and if so, when?

A. I examined those two mines in July last. I am not prepared to say the dates as I haven't my book with me; and then I examined them again in September and October. I think my last examination was the 7th and 8th of October.

Q. What was the condition of the two mines at the time of your last examination?

A. It was good; first class.

Q. You may state, Mr. LaRue, if you have examined those two mines since the explosion?

A. Yes, sir; I have.

Q. Will you kindly state what, in your opinion, caused the explosion that destroyed those two mines and killed that number of men?

A. It is my opinion—as I stated before the coroner at Fairmont—that a runaway trip of nineteen loaded cars from near the top of the slope at No. 6 mine was the cause of the explosion. They ran on a nine per cent grade a distance of over a thousand feet and wrecked at the bottom of the slope. There were twenty-one cars—loaded cars—destroyed. They came in contact with the cars that were standing near the bottom of the slope and besides nineteen cars being destroyed two cars standing at near the bottom of the slope were destroyed, making a destruction of twenty-one cars.

Q. Did any other force combine with the force created by the breakaway cars?

A. There was an explosion produced near that point by a short circuit in the electric wire, according to my judgment, and that produced the explosion.

Q. Do you know what the cause of that breakaway, as you call it, was?

A. The pin that held the front car—connecting the car to the rope—broke.

Q. Well, did you ever examine that pin since it was broken?

A. Yes, sir; I examined a piece of it; there was one piece of it that was produced in court at the inquest.

Q. Were there any defects in it?

A. Not that I could see; no, sir.

Q. Do you know what caused it to break?

A. No, sir; I do not.

Q. How many people were killed in those two mines?

A. About three hundred and sixty, to the best of my judgment. I think there have been three hundred and fifty-nine taken out and my report stated about three hundred and sixty.

Q. You do not know how many men really were in there on that day?

A. No, sir; I could not tell.

Q. Does the company itself know?

A. Not that I know of.

Q. Have they any system of telling how many men went in and are they careful about checking the men that go in?

A. The men are not checked in at all; that has never been the system in that section of the country.

Q. I will ask you if you have any trouble with the operators in your division about the enforcement of the law and the regulations laid down by the mine department?

A. I have had but very little so far. I have had some little trouble in getting maps of mines—by not getting them promptly—but I have had but little trouble with the operators.

Q. What about the appliances furnished for conducting those mines?

A. In some sections good.

Q. Are the operators in your section living up to the law?

A. They are trying to live beyond it, I think.

Q. Now, I will ask you, Mr. LaRue, if in your division you believe there is that care and diligence exercised in the mines that should be done to safeguard the property and the lives of the men in there doing the work—I mean in the interior working?

A. No, sir.

Q. In what respect is that management deficient?

A. Well, I would consider it deficient from the fact that mine employes don't have sufficient knowledge of such work.

Q. Are the mine bosses careful and competent men as a general thing?

A. They seem to be, as far as their knowledge goes; yes, sir.

Q. What effort is made to instruct them in their duties, if any?

A. Well, in the Fairmont region they are called into weekly meetings, before the general superintendent, and all conditions pertaining to safety, and everything of that kind, are gone over with care.

Q. Do you find a disposition among operators in your division to co-operate with you in enforcing the law and living up to the requirements?

A. Yes, sir, I have so far; I have had no trouble so far.

Q. What suggestions have you to offer that would better the conditions of the mines in this state and better safeguard the property and the lives of the miners, that are not now in practice?

A. That is rather a sweeping question; there could be a great many things recommended.

Q. Well, kindly give us the benefit of your suggestions along that line.

A. Well, in the Fairmont region—speaking of my own district—what might be suitable in my district might be detrimental in others, you understand.

Q. You speak of conditions as you find them there?

A. I am in favor of the use of flameless powder—or powder as near flameless as it can be gotten. That is one thing I would suggest. And I am in favor of taking electric machines out of the mines. I speak of the chain machines.

Q. They are dust creators, are they?

A. Yes, sir; and I am in favor of the coal being shot by competent shot firers.

Q. Is that done in your division?

A. Not since this explosion. I am insisting on it being done now, but you know how much power I have behind me.

Q. They are trying to comply with your suggestions, are they not?

A. Yes, sir; and where the chain machine is used I am insisting on blocking the coal before shooting.

Q. Do you believe that in tamping holes they should use clay or some other substance of that kind.

A. Decidedly so; yes, sir.

Q. What have they been in the habit of using?

A. Just coal, from the face of the rooms and headings.

By Chairman Gartlan: Q. Mr. LaRue, have you had any experience in the use of flameless powder?

A. Oh, yes; several mines are using it all the time.

Q. Can you go in the mines right after a shot has been put off?



A. If the shot does its work properly you can; if not, the smoke is too great.

Q. What do you mean by the shot not working properly?

A. Now this flameless powder—or so-called flameless powder (I do not think there is such a thing as flameless powder) when it does not do its work—when it is blown out, it makes a very strong, offensive smoke. I had one fire boss overcome with it. But when the powder does its work they can go right back to work.

Q. But when it blows out it is a little dangerous?

A. It is smoky.

Q. Are there any gasses left by that that would create a small fire with an open light?

A. I have never been able to detect any in the few months' experience I have had with it. I have never tried it with an open light but I have with a Wolfe light.

By Delegate Strickling: Q. When you made your examination in October was it a general examination?

A. Yes, sir; I made a careful examination the last one I made. You have reference to the two mines that blew out?

Delegate Strickling: Yes, sir.

Witness (continuing): Yes, sir; the second examination made was a very careful one. When I first went there I was a new man in the field and I went around and just simply stopped long enough at the mines to see if they were in safe condition. I wanted to get in touch with the work as I was a stranger in the field; but on the second round I made a careful examination and spent four days in those mines—two in each mine.

Q. After you made this examination did you make any suggestions of any kind to the company as to what they should do?

A. Not in writing; I did not find it necessary.

Q. Did you verbally?

A. I went over some things with the mine foremen in the mines about cleaning some slate along the main road and made some suggestions about keeping the dust watered. Where the coal fell off of the cars on the sidetracks there was some accumulation of dust produced by crushed coal and where that had happened I ordered him to keep that cleaned up and watered, if necessary. At that time of the year there was a great deal of moisture in the mines and water was not really necessary in many parts of the mine at that time. Two of the sidetracks had the appearance of being a little dry and I cautioned him about watching those conditions and to keep them watered if necessary. I went over that with the mine foreman in company with the company's chief inspector; he always would go with me through the mines.

Q. Who is that?

A. David Victor; that is, he goes with me through all large, and what are supposed to be dangerous, mines.

Q. Is your division what is known as a gaseous region?

A. Yes, sir; it could be termed such. I have some mines that are very gaseous—that is, they produce a light gas.

By Delegate Strickling: Q. Were these two particular mines gaseous mines—No. 6 and S?

A. No, sir; they produced some gas but they were not dangerously gaseous.

Q. What was the condition of the rooms as to dust—where the men were working?

A. There was no dust at that time of the year.

Q. Well, in the winter, would they become dusty?

A. Very much so if they were not kept watered, in my judgment, especially in parts where they were using mine machines—chain machines.

Q. Well, they had no means of watering the rooms?

A. No, sir.

Q. Your opinion is they never watered any of the rooms?

A. It had never been the custom in that region to water any rooms, so I have been informed.

Q. Do you know what their practice was of shooting after they had undercut and loaded the dust?

A. I know what the orders were.

Q. What were they?

A. The orders were for the dust to be loaded up and no shots were to be fired within twenty minutes from the time the last dust was loaded. Those were the orders from the mine foremen to the men.

Q. Do you know to what extent this order was carried out?

A. I do not know that that order was violated, on my own personal knowledge; I never saw it violated. I learned from testimony at the inquest, however, that it had been violated, but to my own personal knowledge I do not know of its being violated.

Q. Could you say what per cent of the miners in that mine were foreigners?

A. I could not say exactly—about ninety per cent, I judge; they were nearly all foreigners.

Q. And many of them were not able to speak English?

A. Oh, no; but very few of them I think were able to speak the English language.

Q. Do you know where the miners get their powder?

A. Yes, sir; I know where the company's magazine was; they get their powder in various places, but I know where they get it from the company.

Q. Was there any restriction on the miners as to the amount of powder they should take in?

A. There was no restriction as to the amount they took in but there was a restriction as to how they should take it in. They were not allowed to take in any cans of over five pounds weight, but they were allowed to take in more than one can if they needed more than one can for one day's work.

Q. What was done with the powder that was not used up during the day by the miners?

A. Well, they usually left a piece of the can in the mine. They hardly ever carried more than one can at a time. Most of the miners had two and some had three cans. Some mornings they would take in three cans and some mornings only one, and the surplus that was left was generally emptied into a can and left in the mine after the day's work was over. Perhaps you would find two or three pounds of powder in one of those five pound flasks after the miner had gone out. On one or two occasions I found as much as two or three pounds of powder in twenty-four pound kegs. These kegs had been brought in there, though, for the purpose of handling water. I never found anything larger than the five pound flask after the new law went into effect—that is, in the Fairmont region.

Q. How many entries were there to those mines?

A. There were seven parallel main entries.

Q. How many of those entries were watered at all?

A. One—one main entry. There was only one track.

By Delegate Mitchell: Q. You spoke of the company's magazine: Were the men permitted to store powder in the company's magazine that had been purchased at places other than the company's stores?

A. I think not, Doctor. They had it in boxes at various places outside. The powder they purchased from the company was left at the magazine but I do not think the powder they purchased from local merchants was deposited there; it was kept in the houses or in boxes outside of the mines, in various places—is my information about that.

Q. Would it not have been a safeguard to the men to require the storing of all powder used by the men in the company magazine?

A. Yes, sir; it would sometimes stop them from being burned in their houses by it, and other places, too. I have had as many as two or three men burned at a time in their houses; three were burned at one time that I know of at their homes.

By Mr. Malcolm Jackson: Q. Mr. LaRue, the suggestions you made about flameless powders, and other matters: Are they not fully covered by the present law?

A. I do not know about that.

Q. Hasn't your department a right to stop any defect or practice that is dangerous to life and health and to close down a mine if the operator does not follow your instructions?

A. Yes, sir; I think so.

Q. Well, then, if the practice of using any particular kind of powder is dangerous to life or health, why don't you stop it?

Witness: Why don't we stop it?

Mr. Jackson: Yes, sir.

A. Well, that is what we are doing, but you are aware of the fact that a great many companies object, and object seriously, and it would take quite a time to enforce the use of flameless powder in mines.

Q. Hasn't your department absolute power under the statute to stop the use of any kind of powder that is dangerous to life or health even if you have to close down the mine to compel obedience?

A. I am not so clear on that. I look upon that as being optional with the operators under the present law; that is my judgment about it but I may be wrong.

Q. Are you familiar with the provision of the law in regard to the department having power to stop any practice that is dangerous to life or safety, and if an operator refuses to obey, on one day's notice the chief mine inspector can have the mines shut down?

A. Yes, sir; I remember that part of it.

Q. Do you say there is anything optional there about the operator obeying the law?

Witness: How is that?

Mr. Jackson: Do you claim there is anything optional with the operator about obeying the law?

A. It is not being done.

Q. Well, whose fault is it?

A. Well, now, that is for the legislature to decide, I reckon. They have refused to take locomotives out of the mines and the courts sustained them in it.

Q. But in the first place hasn't your department a right to shut down a mine and then make the operator prove, by application to the court or judge, that you are wrong, and isn't the law perfectly clear in regard to that?

A. Not in regard to flameless powder, in my judgment, it is not; no, sir.

By Mr. C. W. Dillon: Q. You spoke about watering down the dust: If a mine were watered in the entries would you consider that there would be enough dust in a room to necessitate that being watered?

A. In some sections of the mine, in my territory, yes, sir; there would be.

Q. There would be enough dust in one room to cause an explosion in that particular room?

A. From a blown out shot of black powder there would be; yes, sir.

Q. Would it be just local?

A. That would depend upon the general condition of the mine and the atmosphere—the general condition that the mine would be in at that time and the condition of the atmosphere.

Q. Well, if entries were all dustless or watered down, it would only be confined to the room?

A. Under those conditions it would likely be a local explosion. We frequently have local explosions but there is such a thing as danger from a general explosion from such conditions.

By Delegate Strickling: Q. There was a runaway of cars about a month before this explosion, was there not, on the same slope?

A. Twice; eight loads at one time and four empties at another.

Q. At one of those trips there was a fire, or the dust became ignited, did it not?

A. About four or five weeks before—according to the evidence given at the coroner's inquest at Fairmont—there were four empty cars ran from the top of this slope to the bottom of it and wrecked and threw on the short circuit and produced a local explosion there that extended about two hundred feet inward from the point of the wreck.

Q. Did you have any information of that until after this explosion?

A. None whatever, and the company had none. That thing was kept secret.

Q. Employees of the company kept it secret from your department and from the company itself?

A. Yes, sir; I questioned the company's chief inspector about that when I first saw him and he said he had no knowledge of it, and I have been told by some of the company's officials that they had none and that they could have prevented the explosion that did occur. I have been told that since.

By Mr. Malcolm Jackson: Q. Was there any loss of life attending the first small explosion?

A. None at all.

Q. And this explosion occurred at the foot of this slope?

A. Yes, sir; three men were there at the time. They were in a shanty, or dug-out, perhaps about a rod outside of where the explosion extended outward, and they were not harmed.

Q. It couldn't have been much of an explosion, otherwise these three men would have been killed?

A. The explosion was inward—beyond where these men were. It did not touch them; it was a light explosion; there was but very little dust at that time. I questioned the fire boss and he stated this on his oath: He said the only thing that prevented a general explosion at that time was a lack of dust but they did not have that lack of dust when the nineteen cars ran away the day this other explosion occurred.

By Mr. W. D. Ord: Q. Mr. LaRue, you stated that you have had experience with flameless powder. I want to ask you whether that experience was acquired while you were a mine inspector, or as a workman, actually with the flameless powder?

A. It was since I have been an inspector.

Q. You have had no experience as a workman with flameless powder?

A. I have three shaft mines that use it.

Q. But your experience is confined to the casual visits you make as an inspector to those mines?

A. Yes, sir; but I have made it a business to pay a good deal of attention to those things.

Q. Awhile ago, in talking aside, you mentioned masurite.

A. Yes, sir.

Q. Have you ever found that that gives off a gas just while lying idle in a room by itself?

A. I have never discovered that; I have never been any place where it was used with an open light and I have never been able to detect any gas after a shot, with the use of a safety lamp.

By Chairman Gartlan: Q. How long have you been engaged in work connected with coal mines and coal mining?

A. On the 13th day of next month it will be forty years.

Q. Have you ever taken any training outside of the practical work, along these lines?

A. Only what I have read.

Q. You have been an actual, practical miner yourself, have you?

A. Yes, sir; I have been a mine foreman and superintendent for about twenty-six years. Prior to that time I mined coal.

Q. Where have you been engaged for that length of time?

A. Well, I have been engaged in this State, Pennsylvania and Maryland, but most of my experience has been in the eastern part of this State.

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FRANK E. PARSONS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Frank E. Parsons.

Examination by Senator Kidd:

Q. What is your occupation and in what business are you now engaged?

A. I am engaged as mine inspector for the Second district of the State of West Virginia.

Q. Please tell the committee what territory is included in your district?

A. I do not know whether I can do that or not. It is Harrison, Upshur and Lewis. It was re-districted in July and absolutely I cannot just tell the counties, but Harrison, Lewis and Upshur are the counties in which mines are located, with the exception of one mine which is in Ritchie county; but it is not a coal mine. It is a petroleum product and I do not know just what it is called.

Mr. Paul: Grahamite.

Q. Mr. Parsons, how long have you held the position which you now hold?

A. Since August 1st, 1905.

Q. Prior to that time in what business were you engaged?

A. Well, for twenty years before that time I was engaged in mining coal—engaged as a miner, and as mine foreman, superintendent, fire boss and other business in and around mines.

Q. What is your age now?

A. I will be forty-six years old on the 27th day of the coming April.

Q. How much of that time have you been spending in mines?

A. I have spent, I suppose, possibly twenty-five years of my lifetime in and around mines.

Q. Mr. Parsons, do you have any trouble with the operators in your district about the enforcement of the laws and the rules and regulations prescribed by the mine department?

A. Now, they seem to very cheerfully comply with the recommendations I make—at least satisfactory to themselves, but sometimes not satisfactory to myself—but as they understand the law they cheerfully comply. Now, that is about as near as I can put it.

Q. Have you had occasion to complain in order to get them to do these things?

A. Oh, yes; I have had occasion to go to them and take the matter up very rigidly about complying with my recommendations. They do not just understand what I mean when I say that their mine is dusty and that I want it kept thoroughly wet. They sometimes think that a water car, with a perforated pipe, drawn along the track, spouting a little water—that that is what I mean: but when they and I get together and I have a chance to tell them, I tell them that is not what I mean—that I mean for them to wet that dust and keep it wet.

Q. Well, do they comply after they understand what you mean, readily or reluctantly?

A. Well, most of them comply readily and some of them reluctantly.

Q. Well, you do have some trouble in getting them to comply with the rules and regulations, do you?

A. Yes, sir; I do—that is, to my idea of fully complying with the law, I do.

Q. Were you at any time in the Thomas mine that exploded in February last?

A. I was.

Q. Prior to the explosion?

A. I was there prior to the explosion.

Q. Were you there afterward?

A. I was there a short time afterwards—before the bodies were recovered?

Q. What have you to say about the cause of that explosion?

Witness: Do you mean about the element of combustion that caused the explosion?

Senator Kidd: Call it whatever you may—what was it that caused it?

A. In my judgment it was a gas explosion.

Q. What generated the heat that caused the gas to settle?

A. Nothing; there was no heat in there; that was a marsh gas liberated from the coal.

Q. What is a marsh gas?

A. Well, that is a gas—carburetted hydrogen.

Q. It is generated in these mines sometimes?

A. It is liberated from the coal; yes, sir.

Q. Do you think the operators, or those under them, in the mines, are as careful as they ought to be and properly safeguard their mines and the lives of the men employed therein?

Witness: Do you mean Thomas No. 25?

Senator Kidd: I mean in all of your division?

A. Some of them are and some of them are not. They might be as far as their knowledge of mining goes.

Q. I will ask you if a spirit does not seem to prevail to get out coal rather than protect life throughout the mine region where you have been?

A. I do not hardly think it.

Q. Is a superintendent not regarded as exceedingly efficient if he gets out a large quantity of coal?

A. He is considered a very valuable man if he gets out a large output of cheap coal.

Q. Well, do you believe that the mines inwardly are managed in that careful way in which they should be to protect the property and lives of the men?

A. Some of them are and some are not, in my district.

Q. Are not miners of all nationalities and languages, and inexperienced, permitted to go there and go to mining without much instruction?

A. In some instances they are and in some they are not.

Q. Are not miners themselves permitted to take in men to help them, without the knowledge of the company, and not looked after at all?

A. No, sir. Without the knowledge of the company you say? No, sir.

Q. Is it not a fact that miners are permitted to take in and do they not take into these mines two or three helpers for a day or two at a time, if they desire, to help them along?

A. No, sir; that is not a fact; that is not a fact, from my knowledge.

Q. Is it not a fact that people seeking employment or seeking to get from one point to another—that many frequently apply to the miners at those mines and are taken in for a day or two at a time as what they call "helpers," and paid by the miners, and no account taken of that work by the company?

A. That is not a fact to my knowledge.

Q. Was it not said that there were many of that kind in the Monongah mines at the time of the explosion, and was not that the reason they could not estimate the number killed?

A. I do not know what was said—not being acquainted with the men—but if that condition exists in my district I have no knowledge of it.

Q. What means do your operators or those in your division have of telling who is in the mine and how many are in there?

A. Well, I have no knowledge of that other than the knowledge I gleaned while working for the same company in the capacity of mine foreman and superintendent. Prior to the time I was appointed an inspector of mines I worked for that company and at the time I was mine foreman or superintendent I had absolute knowledge of every man who worked in my mine and of every working place in the mine and the number of men in there.

Q. Was it not said when these two mines exploded at Monongah—by the president of that company—that from a careful checking of the men it would not exceed two hundred and fifty in both mines?

A. I absolutely do not know; I did not have any conversation with him and I did not have time to peruse the papers; I had no knowledge of that at all.

Q. What method is employed and what method did you employ to ascertain the number of men daily in the mine at work?

A. I had a book with every man's name that was employed in the mine—when I was mine foreman or superintendent—with his check number.

Q. Where did they get those checks?

A. At the time I was superintendent they got them at my office.

Q. And no man was permitted to enter without a check?

A. No man was permitted to enter that mine—for the purpose of working there—without a check.

Q. Who determined whether he was going in there to work or not?

A. When I was mine foreman I determined that.

Q. Did you stand at the entrance to see who went in and who did not?

A. I did not; but I knew every man personally who worked under my charge and if I saw a stranger in there I would interrogate him.

Q. Do you know whether that practice is followed at any other mines?

A. I do not know except in the mine I had the management of; but that was my method.

Q. Now, when you go to the mines in your district, can you apply to any one in connection with that mine who can give you an accurate and definite count of the number of men in the mine at that time?

A. Yes, sir.

Q. And you do do it?

A. I do do it every time when I make my report.

Q. What means do they use to ascertain who goes in a mine; in your division, now? When you go to one of the mines for an examination can you apply to any one to tell you the number of men in that mine—actually in there at work?

A. Yes, sir.

Q. How do you do it?

A. I go to the superintendent or mine foreman. The mine foreman has a book with the names and check numbers and to whom issued.

Q. But can he tell you how many are out or not in there doing work?

A. Well, if he has visited the working places on that day, he should.

Q. Is it not a matter of fact that at a great many of these mines men can go there in the morning and go in, and no notice taken of it, in a great many instances?

A. Now, I do not know absolutely.

Q. At the Thomas mine at the time of the explosion, didn't the evidence show that they began to go in there at half past five in the morning and no check was put upon them and no one knew who had gone in and when they went in or anything about it?

A. Now, if I had a chance to refer to the evidence I could answer that question better. I heard all of that evidence and helped to recover those bodies, but as to their actual methods I have no special memorandum.

Q. Well, do you believe a rule should be promulgated whereby no man should be permitted to go into a mine to work without he had a check from some one whose duty it was to give him that check, so that they would know exactly who was in there, and that no one without being regularly employed by the company should be permitted to go in there and go to work?

A. I do absolutely believe that there should be a rule of that kind.

Q. Have you any suggestions to make to this Committee which would further safeguard the property and lives of miners in this State, not now embodied in the law or rules of the mine department?

A. Well, I believe that we should use in our dry, dusty mines, a flameless explosive, as near as possible.

Q. Well, would it be necessary in the law to leave that to the judgment of the mine department so that that department can determine which mine is gaseous and dusty and which is not?

A. That would be a very reasonable solution I think, and they will be competent, I believe, to judge of that matter.

Q. Conditions in the State are different at different mines.

A. Yes, sir; at different mines

Q. The different mines in your division show a difference, do they not? Some are more gaseous than others, are they not?

A. Yes, sir; and some are dusty and some are very wet.

Q. Do you believe before shots are fired that rooms should be sprinkled so that the dust may be dampened?

A. It would be owing to the condition of that room. If it was a dry, dusty room, I absolutely believe it should be done, but if it is wet, it is not necessary. Conditions govern all these things.

Q. What do you believe in using for tamping these holes when you are going to fire these shots? Do you believe in using coal dust?

A. If a man is a practical miner, and has proper knowledge of how to drill and stem his hole, tamping with wet coal is just as good, in my judgment, as clay; but taking into consideration the classes of labor we have employed in our mines, I believe it would be a very good idea to have a standard material to tamp a hole with—clay.

Q. And that should be furnished to the miner?

A. Yes, sir; conveniently to his working place, I think.

Q. Wouldn't it be most convenient to supply this clay to the miners at the pit-mouth?

A. No indeed; that would be very inconvenient.

By Mr. Rothstein: We are doing that in the Davis Coal & Coke Company and we find they concur in it; they seem to like it. They take the clay in with them in the morning the same as they do their powder and their food.

Witness: It would be all right if they thoroughly understood it and would take it in with them; but if I had a hole bored and had to walk to the pit mouth half a mile it would be different. If it were understood that it would be furnished at the pit mouth and taken in, that might be all right.

Mr. Rothstein: They have a receptacle to take it in with—an empty can.

Witness: That would be very convenient and they could stop and get their tamping.

Mr. Rothstein: Well, put that in effect for a month or six weeks.

Witness: What kind of clay do you use?

Mr. Rothstein: Common yellow and red clay.

Witness: Fire clay; you do not use that, do you?

Mr. Rothstein: No, sir; we use common yellow clay.

Witness: Common yellow clay, my experience is, if not too damp is very good tamping, but if it is too wet, it is not very good; it is owing to what degree of moisture is in it; but to a man who has had experience, I believe that wet coal is better than clay. I mean if he has got experience enough to know what degree of moisture his coal ought to have. It is not very safe to let an inexperienced man tamp a hole with coal. If I were going to tamp a hole I would sooner risk wet coal than clay.

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J. F. BRATT, a witness of lawful age, having been first duly sworn, testified as follows:

### Testimony of J. F. Bratt.

Examination by Senator Kidd:

Q. Mr. Bratt, what position do you hold in the State of West Virginia?

A. I am mine inspector of the third district.

Q. What is included in the third district?

A. Preston county, Barbour county, Monongalia county and Taylor county.

Q. How long have you held that position?

A. Two years last July.

Q. What experience have you had in mining?

A. Well, I have had about forty-five years practical experience in coal mining.

Q. In what sections?

A. In West Virginia, Ohio and Pennsylvania.

Q. Mr. Bratt, do you have any trouble with the operators in your division in getting them to comply with the law and the rules laid down by the mine department?

A. Some trouble; yes, sir.

Q. In what respect does this trouble arise?

A. Well, they fail to comply with the law in some respects.

Q. Is it an absolute refusal or do they contend that the law means a different thing from what you say it does—from your construction of it?

A. Well, it is more a neglect on their part; they do not seem to antagonize the law in any way.

Q. Well, after you explain matters to them do they show a willingness to act in concert with you and comply with your construction of the law?

A. They do, yes, sir; they generally make fair promises.

Q. Well, do they live up to them?

A. No; they do not always live up to them.

Q. Have you any suggestions to make that would further safeguard the mining industry of this state?

A. Why, I have some, perhaps.

Q. Please give the benefit of your suggestions to the Committee.

A. I think that one thing I would suggest would be to use or to have an entirely safety explosive and do away with black powder in coal mines. Another thing that I think would be very good; I consider that electricity in gaseous mines is absolutely dangerous.

Q. Do you mean by that the use of electric motors to haul out the cars, or the machines?



A. I mean the electric mining machines.

Q. Well, is it not a matter of fact that electricity in mining has added danger to it?

A. I think so; yes, sir.

Q. What have you to say about the manner of tamping these holes before shots are fired?

A. Well, I think that they ought to be tamped with wet tamping.

Q. Clay would be all right, wouldn't it?

A. Yes, sir; clay would be all right.

Q. Do you think that there is enough care used in the inside of these mines, with the people in there, to give that proper care necessary for the protection of the property and the lives of the men, the way that the mines are now run?

A. I do not know whether I just understand your question or not.

Q. I mean this, Mr. Bratt: Are not inexperienced and inefficient men placed in charge of the inside workings of the mines to such an extent as to endanger the property and the lives of the men in there?

A. Why, in some instances I think they are.

Q. Have they that high degree of efficiency necessary for the importance of the work?

A. No, sir; there are some of them I would say have not.

Q. You have what I believe you call a fire boss in the mine?

A. Just where it generates fire damp.

Q. And a pit boss?

A. Yes, sir.

Q. And a mine superintendent?

A. Yes, sir.

Q. Are these gentlemen selected on account of their efficiency, usually?

A. Well, they are selected—as I understand it, the fire boss generally is selected on account of his efficiency, by the company; the pit bosses sometimes are selected just because they are favored.

Q. By some one with a "pull," as we say in politics?

A. Yes, sir.

Q. There is some influence behind it?

A. Yes, sir.

Q. And it is not always the most efficient man who gets the most responsible position, is it?

A. No, sir.

Q. Sometimes men are placed in these responsible positions because they have some "pull," as I have said?

A. Some "pull;" yes, sir.

Q. Now, do you subscribe to that practice of putting an inefficient man in a position of that responsibility?

A. Not where I can help it.

By Delegate Strickling: Q. You say you have some difficulty with the miners to get them to carry out your suggestions and the law. Now, will you point out some of the suggestions you made of the violations of the law that you had difficulty with the operators in carrying out?

A. Why, in watering—keeping their dust wet and taking down loose slate along the haulways, and such things as that. There are some places where I recommended that certain portions of the mine be worked with a safety lamp on account of the gas and they failed to do it.

By Mr. Malcolm Jackson: Q. Do you know of any safety explosive?

A. Only what I have heard of, sir. I have never had any experience with these flameless powders. It is a late thing I have heard of this masurite, and know where it is used, but I never saw it used.

Q. You have had no experience with it?

A. No, sir, I have had no experience with masurite, nyalite and those things.

Mr. Rothstein: Q. You spoke of carelessness in a few mines in carrying out regulations. Can you tell the Committee in what particular mines that exists?

A. Why, I could tell some of them, yes, sir. I have several of them; I have some on the M. & K. road—some in my county; there are several of them in my own county that have failed to carry out instructions.

Q. I mean the particular names where the most flagrant cases have happened?

A. Well, there is the Newburg shaft for one, and the Austin coal mine for another, and the Merchants Coal Company at Tunnelton.

Q. Did you report these cases to the chief inspector?

A. Sometimes I make a report; where there is anything very seriously the matter I report to him.

Q. You spoke of some fire bosses being selected from among the rank and file of the employees. Do you know of any particular one you did not consider competent?

A. No, sir; I said the fire bosses—if you understood me—were selected on account of their efficiency.

Q. I mean pit bosses—excuse me.

A. Well, there are some pit bosses in my district that I do not consider really competent men.

Q. Do you report that their inefficiency is jeopardizing the property?

A. For the inefficiency of the pit boss, and his failing to carry out the instructions I gave him, I have had pit bosses removed on that account—one especially. He claimed that it was not his fault and the superintendent claimed that it was; and I had no authority over the superintendent but I did prescribe certain conditions or the removal of the pit boss.

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E. V. BYRNE, a witness of lawful age, after having been first duly sworn, testified as follows:

### Testimony of E. V. Byrne.

Examination by Senator Kidd:

Q. Mr. Byrne, what position do you occupy?

A. Deputy mine inspector.

Q. For what division?

A. For No. 4 district.

Q. What is included in your division?

A. Well, I do not know whether I could just name all of the counties that are in it or not. I have only got about four that have mines in them—those are Randolph, Tucker, Mineral and Grant. I have several other counties but there are no developments in them.

Q. Are there any coal mines in Grant county?

A. Yes, sir.

Q. How long have you been engaged in connection with coal mining in different capacities?

A. About twenty-three years.

Q. What states?

A. In the states of West Virginia, Ohio and Pennsylvania.

Q. Have you been a practical miner yourself?

A. I consider that I have.

Q. What position have you held in connection with mines?

A. I have worked as miner, track-layer, machine miner and wire man.

Q. What was your last occupation before your appointment to your present position?

A. I was a machine man—running an electric machine.

Q. Have you had any trouble with the operators in your division in getting them to comply with the law and regulations of the mine department?

A. Yes, sir.

Q. In what respects have you had trouble?

A. Well, in different respects.

Q. Name some of them?

A. Well, in regard to ventilation, in regard to second openings, in regard to oil and explosives used in the mines and in regard to incompetent men.

Q. What is their objection to complying? Is it the different construction that they place upon the law or just a failure to do their duty?

A. Well, I take it from my observation that our law is not sufficient to make them comply.

Q. What suggestion have you to make as to changes in the law?

A. Well, I think we have had very short notice to write up any suggestions or anything like that, and I have not given it very much thought; but I think an inspector ought to have power—if he finds any danger in mines—to remove the man and shut the mine down right there at once.

Q. Are efficient men employed in your district, in all those mines, for the inside working?

A. No, sir; they are not.

Q. Well, as to the pit-bosses: Do they usually get good men for that position?

A. In some places they have and in some places they have not.

Q. Have some of them inexperienced men?

A. In my opinion I think they have.

Q. How does a man get an appointment to a responsible position like that?

A. That is a question I am unable to answer, unless it is a courtesy through the company or through some friend.

Q. Some "pull" in politics as we say—some "pull" with the powers that be? Is that it? Do you believe that the law should be more rigid as to the employment of efficient men to this position?

A. I think so.

Q. Do you think the inspectors ought to have more power to enforce their regulations?

A. I am satisfied they ought to have.

Q. Are the mines in your division, Mr. Byrne, gaseous mines?

A. Well, not to a great extent.

Q. You have less gas in that section, then, than they have in some of the others, I take it?

A. Yes, sir; we have less gas in the district I am in now than we had in the other one.

Q. What about the mines in your division—are they dusty or damp?

A. I would have to say that a majority of them are damp, while you will find parts of them are dusty.

Q. Do you have any trouble in getting them to dampen this dust or to remove it?

A. I always have.

Q. You have had no explosions in your division, have you?

A. Not since I have been an inspector there.

Q. Thomas is in your division?

A. Yes, sir.

Q. That mine is in operation now that blew up there last winter, is it?

A. Yes, sir.

By Delegate Mitchell: Q. Is the difficulty which you meet with in the carrying out of your suggestions more that of postponment to a more convenient season or from absolute refusal?

A. It is absolute refusal.

Q. Do you make any suggestions or require of them anything not required by the law?

A. No, sir; not in my opinion I have not.

Q. What do you do then under those circumstances when they absolutely refuse?

A. Well, they don't just come right out plainly and absolutely refuse, but put you off from day to day, because they know the law is inadequate to force them to it.

Q. Well, so it terminates in this fact of continued postponement from day to day and not simply an absolute refusal, is it? They promise but fail to comply with their promise?

A. In some cases they do; yes, sir.

Q. Well, in those instances what do you do?

A. Well, for instance: I had a man arrested about two years ago and it is pending in court to-day in Marion county. He has never been fined.

Q. Was that man an employe or one of the company?

A. He was an employe of the company.

Q. Did he occupy any official position?

A. No, sir; he was a miner.

Q. Well, those difficulties that you have met—were they on the part of the miners or on the part of the operators or company?

A. Both.

Q. Well, those that were on the part of the company—what would you do in those instances?

A. Well, I think we had a law suit pending for about eleven months with one coal company where it was absolutely dangerous for men to travel in and out on the cages and really it ought to have been shut down immediately.

Q. That is one instance, then?

A. One instance; yes, sir.

Q. Have there been any other instances in which you have resorted to any other method for the purpose of enforcing your suggestions?

A. Well, no, only by threatning them in the way of the law.

By Mr. Malcolm Jackson: Q. Mr. Byrne, some of those operators or their superintendents have had as long experience as you have had in and about mines?

A. Yes, sir; and some probably longer.

Q. You say you think a deputy inspector ought to have a right to shut down immediately?

A. Yes, sir; I do.

Q. What protection would an operator have against an incompetent deputy inspector?

A. He could appeal to the court.

Q. He could appeal to the court after you had shut his mine down; that is your idea is it?

A. Yes, sir; I think the operator is the one who should appeal to the court and not the inspector.

Q. Are you familiar with this provision in the mine law in section sixteen: "and if any inspector shall discover that any mine does not in appliances for the safety of the persons employed therein, conform to the provisions of this act, or that by reason of any defect or practice in or at such mine the lives or health of persons employed therein, are endangered, he shall immediately in writing notify such operator or agent thereof, stating in such notice the particulars in which he considers such mine to be defective or dangerous and if he deem it necessary for the protection of the lives or health of the persons employed in such mine, he shall, after giving notice of one day to the said operator or agent, in writing notify immediately the chief of the department of mines, who shall immediately examine the mine reported to be unsafe, and if upon such examination the mine reported to be unsafe is in fact found to be in an unsafe condition, the chief of the department of mines shall forthwith order the mine to be closed until it is placed in a safe and proper condition for mining operation"?

Witness: While you are doing all that you can blow up every mine in West Virginia.

Q. I asked you are you familiar with it?

A. Yes, sir.

Q. Have you ever tried to assert your power under that provision of the law?

A. No, sir; I have not; I have not had it until recently; and while you are doing that you can blow up every mine in West Virginia.

Q. Did you ever notify an operator under that section, in writing, in any case you complained of?

A. No; under the old law we gave him thirty days.

Q. I asked you under the present law if you have ever served that notice to an operator in any case?

A. No; I don't think I have.

Q. And you say you have never had any explosions in your district?

A. No, sir; we never have.

Mr. Rothstein: I would ask Mr. Byrne to tell the committee if he knows of any particular case in his district where he considers the pit-boss incompetent.

Witness: Well, in answer to your question I would ask you a question: When you would go up to a mine and find men in the mine at work and the fan not

in operation and the mine foreman was in charge of starting that fan, do you think he would be a competent man for that position?

Mr. Rothstein: I don't catch the latter part of that.

Witness: If you go to inspect a mine and find the miners at work in the mine and the fan not running, when the mine foreman was in charge of starting the fan would you consider him a competent man for the position that he was holding?

Mr. Rothstein: Where would you find the mine foreman?

Witness: At home in bed.

Mr. Rothstein: No; unless he had a pit-boss or engineer in charge of the plant.

Witness: Well, the mine foreman was in charge of the thing, and to illustrate it a little more clearly, the day previous to that—it was an electric fan and their electrical appliances had played out and they had no power to run the fan with—he let the men remain in the mine and he turned around and asked me when the "juice" went out what was he to do. Do you consider that a competent man, if he don't know what to do?

Q. What did you do in that case?

A. I notified the company the way I found it.

Q. Did you notify the chief of the department of mines and give them one day to make good or close up?

A. They can start a fan in five minutes or in less time.

Q. I say, did you notify your chief that this mine was inspected and was not being properly conducted?

A. I notified him of the conditions I found this mine in.

Q. Did you recommend that they be compelled to put the mine in proper shape or close it up?

A. I recommended that the fan be started at least thirty minutes before the men entered into the mine.

Q. What particular mine is this that you are discussing?

A. Well, I don't know whether that is a fair question or not. Is it Mr. Paul?

Senator Kidd: I do not think you ought to be required to point to the particular man.

Chairman Gartlan: I think if he makes a statement of that kind he ought to be required to prove it.

Senator Kidd: I mean to point out the name of any particular individual.

Chairman Gartlan: Under the law he is required to make all those reports to the chief mine inspector.

Witness: Well, I have reported to the chief, have I not, Mr. Paul?

Mr. Paul: I do not know about what mine you have reference to.

Mr. Rothstein: Did you prosecute this company for that?

A. No, sir; I did not.

Mr. Rothstein: Coming back to the original question, Mr. Chairman, I would like to have Mr. Byrne tell us of any particular pit-boss in his section that is incompetent. I am quite interested in that section and it may be of assistance to me as an official of the Davis Coal & Coke Company to co-operate with the mining department and make those gentlemen more efficient. Not that I haven't absolute confidence in my subordinate superintendents and their employees, but sometimes those gentlemen are a little lax, and just in the way of getting at this difficulty, which seems to be a little apart from the mine department on these questions, I would like very much to have Mr. Byrne mention any particular pit-bosses that are not competent.

Senator Kidd: I am only speaking for one of the committee. I would like to have the evidence before the committee on the question, but I think it would embarrass people concerned and I do not think the witness should be required to particularize or mention names.

Witness: I, myself, think it is improper.

Chairman Gartlan: Just a moment: We will take a vote on that question.

A vote was taken and it was decided that the witness should answer the question.

Chairman Gartlan: It seems to be the sense of the majority of the committee that you give us the names and circumstances.

Senator Kidd: The committee seems to so hold, but it does occur to me that an examination of this kind is improper.

Chairman Gartlan: While he has gone so far as to state that he knows circumstances I think it should be reported somewhere, and as the report should be made public one time as well as another, why not have it now?

Senator Kidd: Well, then, in the language of the delegates in a convention, "name your man."

A. Well, I do not know without going to the chief's office and getting my report so that I can name the man; but I can name the mine and the company—it was Coketon, No. 26, belonging to the Davis Coal & Coke Company.

Q. At what time?

A. Well, I would not say positively what time it was, but I think it was some time in November.

Q. In November, 1907?

A. I think it was; I would not say positively whether it was, but I think it was.

Q. And you do not remember the man's name?

A. No, I do not.

Q. But he was the pit-boss?

A. He was the mine foreman; yes, sir, and pit-boss.

Q. The mine foreman? We make a distinction, you know. We have a mine foreman in charge of Nos. 26, 35, 36 and 37—four mines, the mouths of which are within a radius of a mile or a mile and a quarter, and there is a pit-boss for each separate mine.

A. Well, I always list them as mine foremen.

Mr. Rothstein: Could Mr. Byrne be excused a minute to get the name of the gentleman so as to get down to "brass tacks" on this?

Senator Kidd: Oh, yes; certainly.

[The witness was here excused from the stand.]

E. H. HILL, a witness of lawful age, having been first duly sworn, testified as follows:

### Testimony of E. H. Hill.

Examination by Senator Kidd:

Q. What position do you hold in the great State of West Virginia?

A. Inspector of the sixth mine district.

Q. How long have you held that position?

A. Two years and a half up to the first of January.

Q. What territory is included in the sixth district?

A. Part of Kanawha, Boone, and one mine in Raleigh.

Q. How long have you been connected with the mining industry of the country.

Mr. Hill?

A. About fifteen years.

Q. In what capacity have you been engaged during that fifteen years?

A. Why, I have served in about all capacities from driving a mule, digging coal and laying track, up to mine boss and mine superintendent.

Q. You have come all along the line, then, from the bottom up to your present position, have you?

A. Yes, sir.

Q. Have you had any explosions in your division since you have been mine inspector?

A. Yes, sir.

Q. At what mine?

A. At the Detroit mine on Paint Creek.

Q. When was that?

A. The 19th of last January a year ago.

Q. How many people were killed?

A. Eighteen.

- Q. What was the cause of that explosion?
- A. Why, it was a dust explosion caused from a blown out shot.
- Q. Were all the men killed who were in the mine at the time of the explosion?
- A. All the men in the mine at the time of the explosion were killed; yes, sir.
- Q. Have you any trouble in your present division, Mr. Hill, with the operators, as to obedience to the law and the requirements laid down by the mine department?
- A. Well, I do not know; some of them I have trouble with.
- Q. Did they disobey when you would direct them to do things, or merely postpone it?
- A. Why, sometimes they put it off a little bit from day to day.
- Q. Well, in your opinion do they employ efficient men for controlling the work in the mines?
- A. Some of them do and some of them do not.
- Q. What character of miners have they in your division—Americans or foreigners?
- A. Why, they have both.
- Q. Which predominates?
- A. I do not know as I can answer that question. There are a good many foreigners; I do not know but what there would be an equal division in my district.
- Q. The fire bosses in the mines in your district—are they usually competent men?
- A. I have none.
- Q. You don't have any?
- A. No, sir.
- Q. The mines in your district are non-gaseous, are they? You don't have any gas to contend with?
- A. No, sir.
- Q. Well, your pit-bosses—are they usually competent men and efficient men?
- A. Some of them are and some are not.
- Q. How do these inefficient men get such positions?
- A. Oh, I don't know.
- Q. Through some influence on the outside?
- A. Well, I could not say that they do. Some times it is a right hard proposition to get a mine foreman that is competent.
- Q. What do they pay a mine foreman in your section?
- A. They pay anywhere from seventy-five to one hundred and twenty-five dollars a month.
- Q. He is paid by the month, is he?
- A. Yes, sir; most of them—I might say nearly all of them.
- Q. Do you have any trouble to get them to keep the dust dampened and removed from the mines in your division?
- A. I have trouble along that line.
- Q. Have you any suggestions to make that would make the mining industry of the state more efficient, by way of a change of law or more power to the inspectors or anything of that kind? Have you any suggestions along that line to offer for the benefit of the committee?
- A. Why I do not know.
- Q. Do you know of any improvements that could be made or any safeguards that could be had?
- Witness: In the way of the mining law, do you mean?
- Senator Kidd: Yes, sir; anything that would safeguard the industry and the men employed therein?
- A. Oh, there ought to be certain changes made.
- Q. Well, will you name some of them?
- A. Well, one thing I think is necessary: There should be a systematic way of wetting mines; I think the law should specify that.
- Q. It is left now to the option of the operator, largely, is it?
- A. Well, in a sense, I think it is.
- Q. Have you any other suggestions to make?

A. Well, in putting in substantial stoppings I think the law should be more explicit in regard to the matter.

Q. Anything else?

A. No, I do not know as there is.

By Mr. W. D. Ord: Q. You spoke of an explosion at the Detroit mine. I would like to ask you whether the labor was union or non-union?

A. It was union.

Q. The men belonged to the United Mine Workers?

A. Yes, sir; they are nearly all American.

By Senator Kidd: Q. At the time of the explosion they were union men?

A. Yes, sir; they were all American citizens, I believe, or mostly; some of them were English, maybe.

Q. Do you know who fired the shot?

A. I think his name was Snyder.

Q. Did he say before he went in that day that he was going to blow down coal or blow hell out of the mine?

A. I understood that he did.

By Mr. Malcolm Jackson: Q. Don't you find the operators in general in your district showing a disposition to comply with the law?

A. Yes, sir; most of them; some of them are a little bit slow.

Q. Now, the position of mine foreman is a very important one to the success of the operation of the mine, is it not?

A. Yes, sir.

Q. And it is to the interest of the operator to have an efficient mine foreman?

A. Yes, sir.

Q. I believe you stated that it was not always easy to get them?

A. Yes, sir; I did.

Q. Now, in regard to watering mines: Mr. Hill, there is a great difference in the conditions existing at mines, is there not—some mines are more dusty than others, are they not?—and some are wetter than others?

A. Yes, sir.

Q. You are familiar with this provision of the law: "In all mines where there is an accumulation of coal dust, such dust should be properly watered down"—that there is a penalty for its violation?

A. Yes, sir.

Q. Is there anything that prevents the mine department from going to the operator of any particular mine and telling him what is required in that mine to keep it properly watered, and if that is not obeyed, to prosecute him?

A. The greater trouble I have experienced in dry mines, is, that the operator or mine boss tries to water the mine with just a common water box, with one or two plugs, as we call them, for the water to drain out at, and it makes a couple or three little streaks along through the road, and they never get it over into the air ways. Those mines might be wet today and I might go through them, or any other inspector, and in a week from this time those mines are perfectly dry and in a dangerous condition.

Q. Is there anything to prevent you from finding out what is the system used in watering, and determining whether it is efficient or not?

A. Well, no, sir; I could not say that there is.

Q. If you should make that investigation and find that it is not an efficient method of keeping down the dust, what is there to prevent you from substituting something else?

A. It leaves a fight between the operator and mine inspector. I think the law should be more explicit; I think dusty mines should be watered with a pipe line.

Q. But when there is a great difference between mines, as you say you have here, is it not the proper thing to let the mine department determine for each mine what is necessary there, and if the operator don't obey, to prosecute him?

A. Sometimes the word "prosecute" means a whole lot in the State of West Virginia. I have tried to prosecute coal operators and they never were prosecuted.

Q. Would not that same thing apply to any new law that you would make?

A. I think if you would put it more explicitly, like the brattice business—I was trying to induce the operators in my district to put in substantial brattices of brick or concrete or something, but I haven't been able to get one to even



experiment with it, for the simple reason that they think the law is not clear on it; that means a fight between the operator and the inspector.

Q. Would you favor the defining in the law of a system of watering that should apply to all the mines of this State?

A. No; I would not say "to all the mines;" I would say to wet mines.

Q. Well, who is to determine whether the mine is a dusty mine or a wet mine?

A. I think the inspector should; I think there should be some record kept of watering that mine. It is mighty hard, I think, under that law, (but you know more about the law than I do), to get them to keep it. I haven't been able to establish it in my district in the past year, and I have prosecuted thirty-two people.

Q. Employees or officers?

A. Both.

Q. Well, did you convict them?

A. Some of them; yes, sir.

Q. Did you have any trouble with them in complying with the law afterwards?

A. Yes, sir; I have had some.

Q. In this matter that you prosecuted them on?

A. Yes, sir.

By Delegate Strickling: Q. In making your examination in these mines, Mr. Hill, what treatment did you receive from the employees of the mine? Have you received courteous treatment, or are you treated as a kind of interferer?

A. I have always been treated very kindly.

Mr. E. V. BYRNE, being recalled for further examination, testified as follows:

### Testimony of E. V. Byrne.—Recalled.

Examination by Senator Kidd:

Q. Are you now prepared to give the name of the party concerning whom you were asked?

A. Yes, sir; it was Frank Pelican.

By Mr. Rothstein: Q. Do we understand that Frank Pelican was the pit-boss at No. 26 mine in November, 1907, and what date, if you can recollect—whether it was the fore part or latter part of the month?

A. I could not recollect that.

Q. Can you establish that it was in November, 1907?

A. It was in the November reports.

Q. What action did you take on that occasion? Did you notify the general superintendent or the owner?

A. I notified the superintendent.

Q. Mr. Scharer?

A. Mr. Scharer; and also by a copy of a letter that I sent to Mr. Scharer and Mr. Lee Ott, the general superintendent at Thomas, and also a copy of the same letter to my chief, Mr. Paul.

Q. And what action did the Davis Coal & Coke Company—the owners of this mine—take on your letter?

A. I do not know; I haven't been back there since; I have been unable to get there.

Q. And what was the nature of the defect in this pit-boss?

A. Well, the nature of it was—as I illustrated—that he would allow his men to go in the mine while the fan was not running, and as I called his attention to it, and stated that I considered it a very dangerous proposition, he turned around and asked me the question, "What are you going to do if your men are in the mine and the 'juice' plays out?" he says, "then what are you going to do?"

Q. Well, the Davis Coal & Coke Company—did they make any reply to your criticism or report?

A. No, sir; I haven't had any report from them—not to my knowledge.

Mr. Rothstein: Mr. Chairman, and gentlemen of the Committee: Can we find out from the chief of the mine bureau whether or not he has received any communication in regard to the matters to which the witness refers?

Senator Kidd: Mr. Paul is here and he can just state if he has.

Mr. Paul: I have here a copy of the report of that mine made on November 15th, and I would like to ask Mr. Byrne to look at it and state if that is the report he sent here of that inspection?

Witness (after examining report). eYs, sir; this is the report I sent to the chief.

By Mr. Paul: Q. Will you state if there is included in that report, or if there is any mention made, of the incompetency of Frank Pelican, the mine foreman?

A. Well, I did not state that on my report, Mr. Paul, but I wrote a special letter about the fan not being in operation, which I thought I had sent you a copy of.

Mr. Paul: Well, I do not remember of having that copy.

Witness: I sent it along with my other recommendations. I illustrated at the time that I had gotten to the mines a certain time of day, and the time of day the fan had been started.

Mr. Rothstein: Along with the questions I have asked I would like to have the primary parts of that report made evidence just as it exists. I am not familiar with it, but I would like to have it made part of the evidence.

Chairman Gartlan: Do you agree to that Mr. Paul?

Mr. Paul: Oh, yes; you can use it all or any part of it you wish.

[The report will be found immediately following the testimony of this witness.]

Witness: Mr. Paul, I thought I had sent you a copy—as I had to Mr. Scharer and Mr. Ott of that letter—reporting the time when I arrived at the mine, and the fan not being in operation, with my recommendations on that letter, separate, but regardless of my report.

Mr. Rothstein: Q. As I understand it the fan had stopped and the men were in the mine. Did the pit-boss recall these men immediately on finding that the fan had stopped? Did he call them out of the mine?

A. No; this was in the morning.

Q. Well, did he put the fan in operation?

A. The blacksmith started the fan.

Q. Immediately?

A. Yes, sir; I went in the blacksmith shop and asked the blacksmith who was in charge of the fan—as the men were going in the mine to work—and he said the mine foreman.

Q. And thereby you averted any immediate danger to the men or the property?

A. The blacksmith went on up and started the fan.

Q. And thereby averted any danger to the men in there, or the property?

A. Yes, sir.

Q. In other words, it was a temporary suspension of the action of the fan?

A. Well, it had been started that morning; but I know I have written a special letter in regard to that one item.

Q. Mr. Byrne, is it your custom to accompany your reports with special letters or to embody them in the report?

A. It has been customary to put them on the written report.

Q. Then in the absence of that particular part on the regular report, your chief was unable to prosecute the Davis Coal & Coke Company—if such evidence existed—in the absence of definite advice?

A. Well, it appears from what my chief says that he has not got any letter with this recommendation on.

Q. Nor is it shown on the report?

A. No; I do not think it is; I am satisfied it was not put on the report which was made for No. 26.

Q. Can you tell us of any other incompetency on the part of pit-bosses in your district? You spoke of there being a few awhile ago, and you have mentioned one.

A. Well, I was in another mine down close to Piedmont and I do not think the man was competent. He might have been competent so far as classifications was concerned but he was not on the date I was there. I would have to go through my reports to find the company and the man's name.

Q. Was this in connection with a mine belonging to the Davis Coal & Coke Company?

A. No, sir; it didn't belong to the Davis Coal & Coke Company.

Q. Mr. Byrne, you spoke of there being some inactivity in regard to the operations in that section as to properly watering the dust, I believe?

A. No, I think I said practically the majority of the mines in my district were wet—they have too much water.

Q. Mr. Byrne, you find the mine owners in your district co-operate with you to remedy any violations?

A. I find I haven't had any trouble with them so far.

Q. Whenever you make requests they are complied with and reasonably promptly?

A. Well, there is a large part of my district I have only been over once; part of it twice.

Q. Well, on that one visit and on the other visit you found they received you courteously and gave you every advantage to inspect everything there was around?

A. Yes, sir.

[Copy of report of the witness, E. V. Byrne, called for by Mr. Rothstein and produced by Mr. Paul]:

#### STATE OF WEST VIRGINIA, DEPARTMENT OF MINES.

Report of E. V. Byrne, Mine Inspector for District No. 4, Month of Nov. 1907 190—  
Date of Inspection, November 15, 1907 190.; Entered Mine 7:30 A. M. Came out  
of Mine 2 P. M.

2. Name of Mine, No. 26 Coketon. County where located, Tucker.
3. Name of operator, Davis Coal & Coke Co. 4. P. O. of Mine, Coketon, W. Va.
5. Name of coal bed, Upper Freeport. Thickness, 4 to 5 feet. Kind of opening—  
Drift, Slope, Shaft—Drift.
6. Supt., C. W. Scharar. 7. Mine Foreman, Frank Pelican.
8. Fire Boss, None.
10. How ventilated, Fan. Diam. of Fan, 12 ft. R. P. M., 60. Force or Exhaust,  
Force.
11. No. of splits in current, One 12. Cu. ft. air at intake, 32600. At outlet,  
39900.
13. Cu. ft. air at No. 1 Right, 7700. No. 3 Right, 8218. 14. Cu. ft. air at No. 2  
Left, 22200.
15. Cu. ft. air at No. 3 Left, 18500. 16. Max. No. of employees in one split  
20735.
17. Is explosive gas liberated, Not that I have seen. 18. Is mine dry, No.  
Is mine dusty, No.
19. How many shifts work each 24 hours, One. 20. No. persons on each  
shift, 55; Horses, 2; Mules, 5.
21. No. Pick miners, 49; Day hands inside, 2; Drivers, 4. 22. Machine-  
miners, none; Operators, None; Helpers, None.
23. Day hands outside, 5.
25. Date of Mine Map in Inspector's possession, None. 26. Did you examine  
Mine Foreman's Record, Yes.
27. Did you examine Fire Boss' Record, None kept. 28. Are the records  
properly made and signed, Yes.
29. Does the second opening meet lawful requirements, Yes.
30. Voltage on electric wires in mine, 550.

#### THE MINE WAS FOUND TO BE IN THE FOLLOWING CONDITION:

1. As to VENTILATION and its distribution to working face, Only fair on  
the account of some brattices needed in the mine.
2. As to DRAINAGE, was only fair.
3. As to COAL DUST, None in the mine.
4. As to ROOF and TIMBERING, Roof bad, timbering good.
5. As to EXPLOSIVE GAS and BLACK DAMP, None found in the mine.
6. As to BREAK-THROUGHS and STOPPINGS, Break-throughs good. Stop-  
pings unsufficient.
7. As to DOORS and BRATTICE, Not very good.

8. As to OIL used, A fair quality was in use.
  9. As to MACHINERY and APPLIANCES, was good.
  10. As to ELECTRIC WIRES, In a fair condition.
  11. As to DANGEROUS PRACTICES, Shooting coal on the solid with black powder.
  12. As to INGRESS and EGRESS, Good.
  13. As to GENERAL SAFETY, Under the present condition was considered to be good.
- Was a certificate posted at the mine, Yes. Date of certificate furnished operator, Nov. 15, 1907.
- In addition to the information contained on said certificate, I found the law not fully complied with in the following respect: As to shooting coal on the solid—with black powder, and brattices.

#### RECOMMENDATIONS.

To remedy the condition of the mine I recommended: As to solid shooting, one of the following conditions may be adopted:

(A) Use flameless powder exclusively, allowing miners to shoot at their convenience, all holes to be stemmed. (B) In the use of black powder shot firers shall be employed to charge and fire shots when other employes are out of the mine. Use no dynamite, except in rolls and clay veins. Use damp material for stemming, and that you properly brattice your mine as to maintain proper ventilation.

J. A. STRAUGHAN, a witness of lawful age, being first duly sworn, testified as follows:

#### Testimony of J. A. Straughan.

Examination by Senator Kidd:

- Q. What position do you hold in the State of West Virginia?
- A. I am mine inspector of the Seventh District.
- Q. How long have you occupied that position?
- A. Since July.
- Q. What was your occupation prior to the first of July, 1907?
- A. Superintendent of coal mines.
- Q. Of what mine?
- A. The Stuart and Splint and Gas Coal Company on Paint creek, Kanawha county.
- Q. How long have you been engaged in connection with the mining industry of West Virginia?
- A. About sixteen or eighteen years.
- Q. Have you had any training in mining other than your practical work?
- Witness: You mean schooling?
- Senator Kidd: Yes, sir.
- A. No, sir; but I have studied it a good deal.
- Q. What territory is included in the seventh district?
- A. Part of Kanawha, Fayette and Nicholas.
- Q. Have you encountered any trouble with the operators in complying with the law and the rules and regulations of your department?
- A. I have found some of them slow; yes, sir.
- Q. Have any of them wilfully declined to comply with or obey your commands?
- A. Well, I could not say that; there is a good deal of the district that I have not gotten over a second time.
- Q. Do they show a disposition to live up to the law generally?
- A. Oh, in most cases they do.
- Q. With whom do you have the most trouble—with the operators or the miners themselves?
- A. I can hardly tell you that; principally with the mine officials.

Q. Are they always found to be competent people?

A. They have got a good many that are not, in my judgment.

Q. To whom do you refer—to the pit bosses, fire bosses, superintendents, or what?

A. I mean the mine foremen and superintendents.

Q. Are your mines gaseous mines?

A. No, sir.

Q. You have no fire bosses?

A. No, sir.

Q. How do those inefficient pit bosses and superintendents secure their positions?

A. I do not know.

Q. Through favoritism of some kind?

A. I wouldn't like to say that: I would judge, though, in a good many cases that they do.

Q. It could not be because of their efficiency, could it?

A. I don't think so.

Q. Have you had any explosions in your division?

A. Not since I have been an inspector: no, sir.

Q. Have you any suggestions to make that would better safeguard the mining industry of the State?

A. I think there should be some additional laws: yes, sir.

Q. Now, in what respects could the law be amended to be beneficial?

A. That is a pretty broad question.

Q. I don't ask you to word the law but simply give us the suggestions?

A. Why I think the dust question is a right serious one, and also the powder question.

Q. What would you recommend about the dust?

A. That there be better systems of sprinkling the dust.

Q. What would you think about requiring the rooms, before shooting, to be sprinkled where there is coal dust?

A. I think they should be; yes, sir.

Q. Is there any gas in your mines?

A. No, sir.

Q. In none of them?

A. I haven't found any.

Q. You are not in a gaseous region?

A. No, sir.

By Mr. Malcolm Jackson: Q. What did you say was your territory?

A. The seventh district.

Q. But what is in it?

A. Part of Kanawha, Fayette and Nicholas.

Q. What part of Kanawha?

A. The northern part—the upper end. I run from Coalburg, on the C. & O. side, to Gauley junction, and then up Gauley river.

Q. Do you have Cabin Creek in your territory?

A. No, sir; mine runs from Coalburg.

Q. Who has Coalburg?

A. Mr. B. H. Hill.

Q. Now, these mine foremen, that you speak of as being incompetent, would their incompetency, in your opinion, endanger the lives of the miners?

A. I think so, in some cases; yes, sir.

Q. Now then, you serve notice on the companies of that fact, don't you, if you find a man of that kind?

A. No, sir.

Q. You do not? If you go along and find a man whom you think is so incompetent as to endanger the lives of miners, don't you call the attention of the company to that fact? Here's the idea: Lots of times you will find a man weak on certain points—that is, he is not a good competent man, in your mind?

A. If he would do anything that was wrong, why certainly I would report him.

Q. But you said that you found these men incompetent, in some cases, to the

extent that in your opinion endangered the lives of the miners, and yet you never in any of those cases served notices on the company and called their attention to having an incompetent mine boss of that kind?

A. If you would go back to my reports, it may be that I have.

Q. Can you say that you did?

A. I will not say positively; no.

Q. It is not always easy to get what you call a first class mine boss, is it?

A. Sometimes they are a little scarce; yes, sir.

Q. And there is room for a difference of opinion about particular men, isn't there?

A. I would judge so, yes, sir.

Q. It is to the interests of the company to have an efficient mine boss, isn't it?

A. I would think so.

Q. It is a very important position in getting out the coal, isn't it?

A. I would think so.

By Delegate Strickling: Q. You spoke of having some difficulty, particularly with officials, in getting them to comply with your requirements and demands. Now, do you make reports to your chief of the demands you make of officials of the companies?

Witness: That they have not complied with?

Delegate Strickling: Yes, sir.

A. If it is anything serious, I do; yes, sir.

Q. Is it not a fact that there are a good many things that the district mine inspectors do not report to the chief at all?

A. I don't know; there might be.

Q. That is what I am trying to find out. To what extent do you report to your chief? Do you call attention to the fact of certain mines not being watered properly wherever you find that condition, and do not put brattices in properly? Do you give those facts?

A. Yes, sir.

J. G. BOYD, a witness of lawful age, having been first duly sworn, testified as follows:

### Testimony of J. G. Boyd.

Examination by Senator Kidd:

Q. What is your occupation?

A. District Mine Inspector.

Q. For what district?

A. For the Eighth district.

Q. What does the Eighth district include?

A. All the mines east of Gauley Bridge, that is on the main line, including Kinneys creek and Laurel creek mines on the north side of the river.

Q. What experience have you had in connection with mines?

A. About thirty-two years and a little over.

Q. Have you had any training in schools of mining or simply in the practical part of coal digging?

A. I have had some training.

Q. To what extent?

A. Well, to the extent of getting a certificate of proficiency.

Q. Have you any trouble or do you encounter any difficulty with the operators in your division about obeying the laws and the rules and requirements promulgated by the mine department?

A. I do.

Q. In what respect does this disobedience occur?

A. In driving their headings and rooms in advance of the distance required by law, and not breaking breakthroughs, and solid shooting—shooting coal off the solid with dynamite.

Q. When the attention of the operators is called to this disobedience of the law do they seek to remedy it?

A. In some instances; yes, sir.

Q. Do some of them refuse to do so?

A. Some refuse to comply.

Q. Have you much shooting on the solid?

A. Yes, sir; considerable.

Q. Does not that injure the mine?

A. It does in my estimation.

Q. How are your mines laid out? Are they laid out carefully, by competent engineers?

A. Mostly; yes, sir.

Q. Have they good maps of the mines?

A. I consider them such.

Q. What about the employment of men as pit bosses and superintendents. Do they have efficient men for those positions, usually?

A. Well, most of them do; yes, sir.

Q. Do you find some that are incompetent?

A. I do; yes, sir; mine foremen especially, and some superintendents.

Q. Have you any suggestions to make that would remedy some of these evils?

A. Well, yes, sir.

Q. Please give them to the committee, will you?

A. I would say that the law ought to be that a mine foreman should stand an examination and have a license and a certificate, and the superintendents should have some knowledge of mining in addition to the foremen; he is his superior officer and he ought to be a man with some knowledge about a mine and some knowledge of it, and I also think there should be an inspector-at-large so that when difficulties arise between district inspectors he could aid the chief mine inspector.

Q. How is your division? Can you get over it well and examine the mines every three months?

A. Yes, sir; I can, but it don't give me a chance to get around and follow up any recommendations I make to see if they are being complied with. It keeps me on the go right constantly.

By Mr. C. W. Dillon: Q. In what particular do you find the operators in your district disposed to disobey the law and fail to follow your suggestions?

A. In not driving breakthroughs as prescribed by law, and driving headings in advance of the air current.

Q. Has that been done since the new law came into force?

A. Yes, sir; it has.

Q. Well, now, how far apart were those breakthroughs that you speak of?

A. I found one entry one hundred and ninety-seven feet. The law is eighty feet. I have even gone so far as to stop an entry, and on my next visit to that mine I have taken men out from their places and stopped work, and when I went back I found they had driven that entry fifty-seven feet in advance of where it was when I stopped it, making it one hundred and ninety-seven feet.

Q. Was it the intention to come back and drive the breakthroughs?

A. I instructed them to drive the breakthroughs and then continue the entry.

Q. Do you know what was the purpose in going that far without breakthroughs?

A. Nothing, only they didn't think that the mine inspector had a right to prescribe the distance or how they should operate their mine.

Q. Well, did this only happen in one mine?

A. Yes, sir; it was only in one mine that they refused to drive the breakthroughs; the others complied with it.

Q. And you know of only one mine in your district that refused to comply with your demands?

A. Only one operation, with three mines.

Q. At other mines were the breakthroughs driven at proper distances?

A. No, sir; three of the mines had violated the law but the other mines belonging to the company in the same district obeyed the law and did everything to comply with the law.

Q. Do you know why they had complied with it at one of the mines and not at the other, and would make a difference as to the method of developing the mine?

A. Not any more than it was under different management; that is all.

Q. It was under the same general management?

A. It was under the same general management but the local management was different.

Q. Was the local management competent?

A. I consider them such; yes, sir; I believe they are, both of them.

Q. Well, have they since undertaken to remedy the trouble?

A. I have not had an opportunity to visit the mines since then; I was called about that time or shortly after to Monongah.

Q. That was the principal objection you found or raised to the method of conducting the mines—the ones you mentioned?

A. Yes, sir.

Q. Do they keep the brattices up and throw the air up to the heading?

A. Not at that portion they did not; not at that point; but there are portions that they do.

Q. Don't they sometimes run those entries up with brattices, and later drive breakthroughs?

A. I find some operators that do that; yes, sir.

Q. Is that a safe and practical way to do it?

A. No, sir, it is not. We do not consider it safe; it may do all right in case of emergency but I do not consider it is a safe practice.

Q. There could be no advantage to the operator in driving those entries without the breakthroughs, could there? It has to be done finally.

A. Well, no; they wouldn't have to make so many breakthroughs. If they were to drive one hundred or two hundred feet and then drive the breakthrough through the pillar and then go back and drive a breakthrough as prescribed by law, they would not do that, or at least I don't suppose they would do it. It would not be of any use to them for ventilation, and I cannot see where it would be of any other use unless it was for some other purpose—making a haulway or something through the pillar.

By Delegate Duty: Q. What action, if any, did you take in the case you alluded to?

A. In my first visit to the mines I cautioned them, and stopped the men, and notified the men in charge—the mine foreman and superintendent—and asked them to have breakthroughs driven as prescribed by law; and I told them that on my next visit to the mine, if I found they had not done that, I would prosecute them. The management got a little hot about it and even made threats against me, and told me when I next came back what he was going to do to me. I did go back there to prosecute them and tried to prosecute. I made a case against them before a justice of the peace, and they waived, and it is now in the court.

By Senator Kidd: Q. In what county is that?

A. In Fayette county. I did everything I could in as nice a way as I could do it.

Q. What was he going to do with you if you came back there?

A. He asserted he was going to lick me.

Q. What was the name of that man?

A. Bertollette.

By Mr. Malcolm Jackson: Q. Bertollette told you that in the heat of temper, did he? You and he had some words, hadn't you?

A. Not any, sir; until he started on me the night I went to inspect his mine. I went to my boarding place—to my boarding house; it was in the evening, and after supper, and I walked along that tramway that is there, and when I went back to the boarding house it was after dusk, and I was about to retire, and I found a young gentleman sitting on the porch and he asked me if I would come up to see Mr. Bertollette—that he had requested him to ask me to come up to his office. I went up to his office, and there was a pay that evening, and he noticed me coming up, I suppose, towards his office, and he started out of his office and over to his engineer's room. The engineer pointed him out to me. I had not met Mr. Bertollette at that time, but I had met his foreman, and he said, "That is Mr. Bertollette going over there now from his office to the engineer's room." And he stopped at the time and I went to him and says, "You are Mr. Bertollette, are you?" And I put out my hand to shake hands with him. He said he was, and said he didn't think I did right in stopping his places, and he commenced fussing around there and even threw the mine laws down, and said, "To hell with the mines laws;" that he was going to run his mine, he said, himself, and didn't intend to have me



or anyone else do it. I told him then good night and told him I had come up to meet him as a man.

Q. You had stopped the work, had you not, before you saw Mr. Bertolette?

A. Yes, sir.

Q. And he was provoked about that?

A. He was.

Q. When you went back the next time there was no effort to injure you, was there, Mr. Boyd?

A. He was not on the operation when I went back the next time; I did not know it or I would have waited until he was there.

Q. Were you after a scrap?

A. No, sir; I was not; but I wanted to give him a chance to carry out his threats.

Q. When you went back nobody offered any violence?

A. No, sir; I did not meet him there at that time. I saw him as he was getting off of No. 14, and I was getting on 13. He was in Pittsburg at the time, but I did not know it when I went up there to inspect the mine.

By Senator Kidd: Q. Who was the company that owned that mine?

A. Why, the New River & Pocahontas Consolidated Coal Company.

Q. Who was the general superintendent of that company?

A. I could not tell you, sir. Mr. Wolf is the assistant general superintendent—George Wolf.

Q. Is this man you refer to still there in that position?

A. As far as I know he is; yes, sir.

By Mr. Malcolm Jackson: Q. You said you had men arrested for shooting off the solid. You said you had some trouble with men shooting off the solid.

A. Yes, sir.

Q. And you mentioned that under the same heading in the answer to the question asked by Senator Kidd as to what trouble you have had with the operators in complying with the law.

A. Well, I haven't had much trouble with the operators—not so very much. A good many men and a few operators do not care to adopt safety explosives.

Q. But you answered the question by saying that you had some trouble with shooting off the solid. I suppose that means that a good many of the men shot the coal off the solid with dynamite and so on?

A. With dynamite; yes, sir.

Q. It was pretty hard drilling?

A. No, not now; they are all in pretty good drilling. They have adopted safety explosives and the men are getting pretty well in line, except they might do it in a sneaking way.

Q. It is possible for them to shoot off the solid, isn't it?

A. Yes, sir, and I have no doubt they do it.

By Delegate Strickling: Q. Is this the only mine in your district where you have received discourteous treatment when you went to make an examination?

A. Well, no; it is not the only mine; it is about the only mine where I received it—where, after inspecting a mine I have received discourteous treatment.

Q. Did you receive discourteous treatment in any other mine in your district?

A. Well, no; I could not say that I did.

Q. The mine owners generally co-operate with you and treat you courteously?

A. Most generally, yes.

Q. Do the officials of the company do the same?

A. Mostly; yes, sir.

D. R. PHILLIPS, a witness of lawful age, having been first duly sworn, testified as follows:

### Testimony of D. R. Phillips.

Examination by Senator Kidd:

Q. What is your occupation?

A. I am Mine Inspector of the Tenth district.

Q. What experience have you had in mine operations?

A. I have had an experience of thirty-nine years.

Q. In what different capacities have you been employed during that period?

A. I began as a boy in the coal breakers in the anthracite region, and I have been through nearly every department up to foreman, and finally superintendent.

Q. How long have you lived in this State?

A. Four years.

Q. What territory is included in your district?

A. My mines are located in Mercer and McDowell counties. Wyoming, Summers and Monroe counties have no mines in them.

Q. You are then in what is known as the Norfolk & Western coal field?

A. Yes, sir.

Q. How many different operations have you under your charge?

A. To the best of my recollection I have four.

Q. And with a great many men employed?

A. Yes, sir.

Q. Mr. Phillips, you may state if you have encountered any trouble in your division with the operators or with the miners or foremen, and so on, of the mines, in enforcing the law and the rules promulgated by the department?

A. I have only made one round and there seems to be a disposition to comply with the requirements of the law. Now, I won't be able to say whether they have complied with my recommendations or not until I make the next round.

Q. You have made certain recommendations?

A. Yes, sir.

Q. At the time you made them did they show a disposition to comply with them?

A. Yes, sir.

Q. Who are some of the operators in your division?

A. I have the Pocahontas Collieries Company, and they dominate the district. Mr. Ord has an operation at Elkhorn.

Q. That is in your division?

A. Yes, sir; he has one mine there.

Q. Well, in these mines how do you find conditions—an attempt to live up to the law and preserve their property and protect the lives of the men employed?

A. In the majority of them I did; in others I found the requirements of the law considerably neglected.

Q. What about the men they place in charge in these mines? Are they competent or otherwise?

A. That depends upon what you would consider competent. If you mean by that that if a man neglects his duty he is incompetent, why, there are some of them who do neglect their duty. They have the ability but then there are features that they do not live up to.

Q. Will you name some of those features and some of the employes there?

A. Well, the law requires that there shall be no kerosene oil, and also that powder shall be carried in in five-pound flasks, or at least not more than is required for a day's work, and it is to be carried in in five-pound flasks. I find frequently that kegs are carried in and also that the employes use kerosene oil; and I find other conditions that the law requires that are not lived up to.

Q. Name them please?

A. The breakthroughs are not always within the law. It is required by law that they should be eighty feet apart, and it is not within that; they are as much as one hundred feet. Then the drainage—[interrupted].

Q. Then, you think, Mr. Phillips, that many things could be done in that section to add to the safety of the mines and the lives of the men, do you?

A. Yes, sir; wherever I have found the law is not being complied with, I have made recommendations; but I do not know, as I stated before, whether these recommendations have been complied with or not?

Q. Do you find any spirit of carelessness in your field there?

A. There is more attention, I think, given to getting out coal than there is to living up to the law.

Q. The great desideratum is to get out coal?

A. Yes, sir; the pusher is considered more useful than the man who lives up to the requirements of the law.

Q. So the man that can get out coal is regarded as more useful than the operator?

A. Yes, sir; but I am speaking generally.

Q. Have you been compelled to resort to the courts in any instance in your division?

A. No, sir; I made up my mind I would not do so on my first round, but that I would make recommendations.

Q. You have been kept out of your field for some time on account of the explosion at Monongah?

A. Yes, sir; and I have also moved during the period. I was appointed a month later than the other inspectors.

Q. Mr. Phillips, have you any gas to contend with in your division?

A. No, sir; I have one mine that generates a little gas.

Q. Then you don't have what are known as fire bosses in your district?

A. No, sir. Well, I have in that one mine a man who attends to that.

Q. How about the care exercised in the dampening and removing of dust in your mines?

A. Well, there is dampening done by watering the dust, but I do not think the system is very effective.

Q. What system is used?

A. A water car with a perforated pipe—what is called a sprinkler.

Q. Is it an efficient system?

A. No, sir; I think that it could be improved.

Q. And a much more efficient system could be devised and used, could it not, without much more expense?

A. Yes, sir.

Q. Mr. Phillips, do you know Mr. Coburn, who was superintendent of the Stuart mine at the time of the disaster in January last?

A. I met him at Fairmont; I only saw him at that time.

Q. You may state to the committee whether or not at any time you heard him say to Mr. Earl Henry, or in his presence, or in your presence, anything about the existence of gas in the Stuart mine prior to the explosion?

Witness: May I look at my notes?

Senator Kidd: Yes, sir.

[Witness here consults his memorandum book.]

Witness: I made a note at that time of what he said and immediately after he said it. I have here my notes, and my memorandum is that he told Mr. Henry and myself that he had heard that the inspector was to call the following day; he didn't state the time; but the inspector was a man named Absalom. He was to visit the mine and he said that he had sent fifty miners home that morning so as to make him believe that he only had twenty men working in the mine at the time—that is, on the day turn.

Q. Then, what was said about gas?

A. He said that in his opinion the explosion originated in some rooms in the Bradley entry and was of gas origin.

Q. Did he say in that conversation anything about sending men there to disperse that gas?

A. Yes, sir; he said that he sent a man to brattice in the entry, but that the man was found dead apparently on his way to the place where he had sent him.

Q. Mr. Phillips, have you any suggestions to make to the committee that would better the mining conditions in our State, that are not now embodied in the law?

A. I think that the law could be revised so as to cover some points that are necessary.

Q. Name these points.

A. In the first place, to cover the wetting of the dust in the mines, and also in regard to the use of the steam locomotive; I had a little experience with that about a week ago. I think that the law should be revised so as to make it effective. There are recommendations, or rather rules, that were sent out by the department that I think should be incorporated in the law, and I think also that there should be a few more mine inspectors so that we could devote more time to returning to the mines to find out whether our recommendations are carried out or not.

Q. Different fields in this State have different conditions, so that the law could

not apply to each. Do you think it would be wise to clothe the mine department with authority to promulgate rules, governing the conditions as found, to the different mines of the State?

A. I think it would be provided the authority was absolute.

Q. What, if anything, was said by Mr. Coburn about sending cars away the night previous to Mr. Absalom's coming?

A. My notes show that he said that he knew of Mr. Absalom's intended visit and that he said that he had sent fifty miners home, telling them that there were not any railroad cars, but his intention was to deceive the inspector and leave him under the impression that there were but twenty men working on the day turn.

Q. Where is Mr. Coburn now?

A. I do not know.

Q. In what employment was he engaged at the time you talked to him?

A. I could not say.

Q. He was at Fairmont, was he not, or Monongah?

A. Yes, sir; he was at Fairmont, at the Manley Hotel.

Q. You were not present when his deposition was taken last winter, were you?

A. No, sir.

By Delegate Strickling: Q. Did he state by what means he had received the information in regard to Mr. Absalom's coming?

A. I haven't made a note of that, but to the best of my recollection he said that they had telephones; he said that they had telephones and he learned of it. I infer that he learned by means of the telephone from some person.

Q. He was at that time seemingly angry at the New River Coal Company, or Mr. Dixon?

A. Yes, sir.

Q. He was no longer in the employ of that company?

A. I understood so.

Q. Why did you take a note of this?

A. Because I was requested to.

Q. By Mr. Henry?

A. By Mr. Henry; yes, sir.

Q. You didn't know what Mr. Coburn had sworn to before?

A. No, sir.

Q. Were you present at the inquest at Monongah?

A. Yes, sir.

Q. Were you present there when an experiment or demonstration was made as to water or dust?

A. No, I was not. I heard of it, though; that occurred the day after I left.

Q. A demonstration was made to the effect that it was a physical impossibility to water dust so as to keep it from suspending in the air?

A. Yes, sir; but I did not agree with that view.

Q. But you didn't see the demonstration?

A. No, sir; but I think it can be wet.

Q. Well, will coal dust mix with water?

A. I think if it is thrown into suspension and each particle is wet separately it will.

Q. Did you ever try to wet coal dust—dust so fine that it will suspend in the air? Did you ever try an experiment of that kind?

A. No, sir; I never did.

Q. Mr. Phillips, when you find operators not complying with the law and you make certain recommendations, do you ever make it a point to go back there in a short time to see whether they are carrying out those recommendations, and how?

A. Yes, sir; if it is an important thing I do.

Q. Have you ever been back to any of the mines at which you made those recommendations, or called attention of the owners to the fact that they were violating the law? Have you ever been back since that time?

A. Yes, sir.

Q. Well, what did you find?

A. I found that they had complied with the recommendations, or at least were making an attempt to comply with them.

Q. These derelictions on the part of the mine owners, as you found them—did

you incorporate them in your report to the chief?

A. Yes, sir.

Q. I believe Senator Kidd asked you what was the attitude of the officials of the company when you went to inspect the mines?

A. Yes, sir; he did.

Q. Was that always courteous?

A. Yes, sir; it was always courteous treatment.

Q. You have never had any difficulty with the operators in that way?

A. No, sir; not in that way; there has been no discourteous treatment, whatever. We have had a difference of opinion but they have never been discourteous.

Q. How many steam locomotives are used in your district?

A. I don't remember but there are quite a number.

Q. They are still in use, are they?

A. Yes, sir.

By Senator Kidd: Q. The way they are used, are they more dangerous than the electric motors?

A. Yes, sir; I think so.

Q. Have there ever been any explosions caused by the use of one of those steam engines?

A. None that I know of.

Q. In your experience in the mines have you known of any persons in the mines having been suffocated by the gas from the locomotives?

A. I have known many to be overcome by the gasses.

Q. So you regard it as a dangerous practice?

A. I do; yes, sir. They are the most inhuman thing ever put in a mine to haul coal with.

By Delegate Strickling: Q. Has that been since you were inspector?

A. No, sir.

Q. You spoke of having found, at times, kegs of powder in the mines: Do you know whether the operators have exercised any system by which they give out this powder and allow it to go in the mine?

A. Yes, sir; they have. At the majority of the mines they are making an attempt now to comply with the law.

Q. Do the laborers generally get their powder from the operator?

A. Yes, sir.

Q. Well, now, if a laborer is permitted to buy powder where he wants to, what system do they use in seeing what amount of powder shall go into the mines?

A. Not any, except they observe them as they carry it in, or the mine foreman sees it as he passes into the mine.

Q. Have the operators a checking system in your district?

A. I think not.

Q. They really don't know then what may go in the mine?

A. Well, to my knowledge there are not any of them that check their miners as they pass in. They have so many openings and outcrops that it is pretty hard to keep tab.

Q. Your department has promulgated certain requirements as to the use of dynamite in mines?

A. Yes, sir.

Q. Have you found any violations along that line—in the use of dynamite?

A. Yes, sir.

Q. In many or few instances?

A. In just a few instances.

Q. Have the companies readily complied with your suggestions in relation to dynamite?

A. Yes, sir; I have asked them to comply and they have complied with them; some of them not very willingly, I will admit.

By Delegate Mitchell: Q. You are not in the habit of requiring of the operators, or requesting them to do these things which are unimportant, are you?

Witness: I do not know what you have reference to.

Delegate Mitchell: Generally, in your suggestions.

Witness: Requiring them to do unimportant things?

Delegate Mitchell: Yes, sir.

- A. If the law requires it, I do.  
Q. What are those unimportant things?  
A. There is nothing unimportant that I know of in the mine law.  
Q. Then the law does not require anything that is unimportant?  
A. I think not.  
Q. What did you mean by stating, then, that you have gone back to see whether they have carried into effect the important things that you recommended?  
A. I think I said "most important."

[The Secretary was here requested to turn to his notes and read the question and answer to the witness, referred to, which he did, as follows: "Q. Mr. Phillips, when you find operators not complying with the law and you make certain recommendations, do you ever make it a point to go back there in a short time to see how they are carrying out those recommendations?" "A. Yes, sir; if it is an important thing I do."]

Witness: I have stated most important. There are some things that are less important than others, but I had reference to the most important things, such as regard the safety of human lives, and so on.

Q. Provided the smoke thrown off by a locomotive should be eliminated from the mine, do you believe that the steam would be of advantage to a mine, especially during the dry season of the year?

A. It could not be, because to eliminate the smoke it would be necessary to put the locomotive on the return current, and therefore it would be of no benefit, because it is not on the intake current. You see the steam would not be on the intake current.

Q. It is to the smoke that you object?

A. To the fumes and gasses; yes, sir.

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WILLIAM WARNER, a witness of lawful age, having been first duly sworn, testified as follows:

### Testimony of William Warner.

Examination by Senator Kidd:

- Q. What is your occupation?  
A. District Mine Inspector of District No. 11.  
Q. How long have you held that position?  
A. A little over eighteen months now—a year from last July.  
Q. How long have you been connected with mine operations?  
A. I have been connected with mines and mining all my life; I never did anything else.  
Q. What is your age now?  
A. Nearly forty.  
Q. What territory is embraced within your division?  
A. Commencing on the East at Switchback coming West and skipping the mines on the North Fork branch; then West the balance of the mines in McDowell county.  
Q. How are your operations confined—to McDowell exclusively?  
A. All my district is within the bounds of McDowell county.  
Q. How many operations are there within your district?  
A. Just let me make a correction: I am supposed to have Wyoming county, but I don't know of any mines in Wyoming.  
Q. How many mines are in your district?  
A. Well sir, since the State was re-districted on account of so many mines being established, I am not prepared to tell that; I have not counted them since I made out my last report.  
Q. Approximately how many?  
A. I think there are between sixty and seventy now, or something like that.  
Q. What are the conditions of the mines in your district as to obedience to law and the rules promulgated by your department?  
A. Taking them as a whole they are far from being what they ought to be.  
Q. In what respect are they deficient?  
A. Many are deficient in ventilation; some are deficient in drainage; in some

there is too much loose roof; some are too dusty—those that are dry; and many of them are not sprinkled as they should be; and the little details of the law in many places are not observed, such as the rule to furnish men with copies of the law and rules instructing the men and disciplining the men; in that respect it is very bad.

Q. When you find these deficiencies what do you do?

A. I do the best I can to have the law observed.

Q. Do you report to headquarters—to the operators, I mean, or the superintendent of the mine?

A. I post the report of my inspections, and I make it a rule to send a copy to the highest authority I find at the mine. If there is a general manager, I send it to him; if they have a superintendent, I send it to him. I invariably do this with a special letter, keeping a copy of that letter, and anything that I think is of sufficient importance, why, I will send a copy of it to Mr. Paul, and oftentimes ask for his advice and instructions, and oftentimes wait for his advice and instructions.

Q. Well, in calling the attention of those in authority, where you find the deficiencies, what kind of treatment do you receive from them?

A. Very often very good treatment, but in some instances exceedingly bad treatment.

Q. Have they in any instance declined or refused to comply with your recommendations?

A. I could not give any specific case where they openly refused me—that is, to tell me personally to my face that they would not do it—but in many cases they didn't do it and it was very plain to me that they were not going to do it.

Q. In such instances what have you done?

A. Invariably I have communicated to Mr. Paul as to what action to take, and he told me to do as I had been instructed before, and to do as my judgment dictated in the matter.

Q. Have you been called on to prosecute any of them?

A. Yes, sir.

Q. How many?

Witness: You mean employers?

Senator Kidd: Employers or employees, either.

A. Yes, sir; I have prosecuted a great many miners; I have also tried to prosecute the bosses and operators and made every effort within my power.

Q. What do you mean by trying to do it?

A. Well, I entered suits and had warrants issued and had the parties brought before the magistrates, and that was the end of it.

Q. You started the machinery in operation?

A. Yes, sir, and followed it up as best I could.

Q. What became of those prosecutions?

A. Well, for instance, in the first place, I found it difficult to even get a warrant for a mine boss, superintendent or operator. It required considerable effort to get a warrant at all or to get a magistrate to take the case; and when I succeeded in that—in getting the Squire to take the case and having the warrant issued—to my great surprise they were brought in and the miners were fined, and the boss—or straw manager, I might call him in one case—was dismissed without my being present; and then in other cases all my evidence and all the effort I could make and all the effort of my counsel went for naught, and that ended it.

Q. Then, as I understand, there is a disposition among the officials and judiciary in that section to favor the operators, bosses, and so on, do I?

A. Well, I can only answer from what I have found. I found it was exceedingly difficult for me as an inspector to get any action of any kind whatever against any coal company, manager or boss.

Q. But you could procure such prosecution against a day miner, could you?

A. With not a bit of trouble; I have had justices solicit me to bring in miners, to prosecute them, and congratulate me for doing the same, and they have asked me to bring in another bunch, to such an extent that I said to Mr. Paul that I felt like prosecuting no more miners.

Q. Are the punishments attached to these violations sufficiently severe, do you think, in the law?

A. I honestly believe they are, if they were applied. Speaking of my district, I know the mere effort of prosecuting does lots of good.

Q. It helps them along, does it?

A. Yes, sir; if I do fail to have them fined.

Q. Do you ever go to the operators themselves and discuss these matters with them?

A. Yes, sir; I do the very best I can along that line.

Q. How do they treat you?

A. Many of them treat me very nice; I never was treated any better in my life than many of them treat me.

Q. You say "many of them." How is the treatment of the few?

A. Not very good.

Q. Can you name some of the operators in your division that are not courteous in their treatment of you as an official?

A. I can do so but I would rather not.

Q. I would like to have you do so.

A. Well, the first important case I can name is that of the Patterson Brothers, of the Bottom Creek Coal & Coke Company. I would have to say that their treatment is not in accordance with my ideas as to how operators ought to treat an inspector. I was treated as badly as ever I was treated in my life, in my opinion, the way I look at it, by the superintendent of the Houston mines at Elkhorn. I was also treated as badly as ever I saw or heard of any public employe being treated by the general manager of the Slick Rock Coal & Coke Company—even to the extent of threatening to do me bodily harm on the street of the town, and even standing so close he could have easily struck me, and he raised his fist above my face; and I think I was compelled to use the greatest diplomacy I was ever capable of using to avert a serious affray right in the town, with at least one hundred people ready to take part, and they were ready to take part on my side. I knew that, and I knew it was necessary to prevent a bad affray. In all those cases I certainly claim that I gave no cause, and I did the very best in my power to prevent scenes and to prevent any harmful results.

Q. What was the name of this man who threatened to strike you and do you bodily harm?

A. Mr. McClaren.

Q. Is he still employed by that company?

A. So far as I know he is still general manager of that company.

Q. Did you call the attention of the operators to the treatment you had received from their employes?

A. In that case I did not; he was general manager, you understand.

Q. As to the superintendents and mine bosses in your section—are they selected on account of their efficiency and ability for such positions?

A. I could not possibly believe that some of them were chosen on any such grounds.

Q. Is it difficult to get efficient men to fill those positions?

A. I have had many managers to say it was. I did not think it was, myself, and don't think so now, and I have done my part to convince them that it was not.

Q. Are the safety of the mines and the lives of the men engaged therein jeopardized by such inefficient officials?

A. In many cases I would say that they were exceedingly so.

Q. I want to ask you if in your opinion there is that care upon the part of the operators and their employes, in and about the mines, which there should be to properly safeguard their property and the lives of the men working therein?

A. In many cases there certainly is not. I believe I ought to offer somewhat of an explanation here. In many cases I believe it is the case that the employers don't understand that they are not doing so. What I mean is that they do not understand that they are not taking care of their men and their property. In other words, I don't wish to be understood as saying that they would deliberately and intentionally try to destroy their property and injure the lives of their employes.

By Delegate Duty: Q. But, in your judgment, they were ignorantly doing so.

A. They were doing so from some cause. I am truly convinced that they thought they were protecting their own property, but, on the other hand, the property was being injured and the mine injured by the conditions there. Now, you can put



whatever interpretation you want to on that. I admit I am absolutely at a loss oftentimes myself to know why they are doing it.

By Senator Kidd: Q. Have you any suggestions to make to strengthen the requirements for safeguarding the mines and the miners of this State by amendments to the law?

A. I feel that as an inspector I could not possibly fail to have.

Q. Now, will you kindly name some of them?

A. I was going to add to that answer, that just on the spur of the moment I would not be very fully prepared to offer suggestions. It will take a little time. Of course, I could prepare something, but off hand I might give some suggestions on conditions such as exist in my district. There is one suggestion that would appear very wise to me, and that would be the question of publicity of the truth and of the truthful conditions and actual state of affairs in regard to the administration of the mining law and the work of the inspectors, and the conditions found. I mean by that that if every citizen, every working man, every employer, every boss and every superintendent was given an opportunity to know the exact truth of the conditions existing, that it would go farther than anything I can imagine, to remedy conditions—farther than any amendments to the law, or increase of inspectors, or increase of power. Of course I do not mean to make that as an argument against any other improvements or changes for amendments of the law. Then I believe there ought to be a few more inspectors, and I believe certain portions of the present law ought to be changed and some additions should be made to it.

By Delegate Duty: Q. What part ought to be changed?

A. Restriction 24 undoubtedly ought to be changed, in reference to steam locomotives. I also believe, too, that if a mine is actually dangerous and lacking in ventilation to such an extent that it is not healthful for men to work, that it would be even too long to wait for the chief inspector to arrive to close the mine down.

By Delegate Strickling: Q. Mr. Warner, as one of the committee, I want to get at the facts, and I would like you to tell the committee what you and Mr. McClaren had that difficulty about. What was the matter in issue between you?

A. Yes, sir, I will do so. Beginning only with the commencement of this scene on the street, the facts are exactly these: I was walking down the street to make a purchase in a store on a Saturday evening; I was walking with a friend—I cannot recall his name now; I forget who it was—but I heard a voice calling, and I looked back and it was Mr. McClaren, and he approached me close enough to ask me if he could speak to me a few moments. I said "Certainly, Mr. McClaren;" and I walked back, and he kept going back, and I felt that I ought to ask him to talk to me there: I did not want to back into a saloon that was right close by, so I says, "Now, what is it you want, Mr. McClaren?" and he says "Come on." I said "No; I cannot go any farther than this; if you wish to talk to me you can talk to me here." Then he approached me right there and then, and demanded in a loud tone to know why I had been intimidating his men. Of course, I did the best I could to tell him that I was not intimidating his men—that I was not trying to do such a thing and was not doing such a thing. And you can better imagine the scene from that on. He raised his fist, and made threats, and called me numerous names, and applied very bad epithets to me, such as this: He said he could prove by one hundred people right there in town that I was a penitentiary bird—that I just came from the penitentiary when I came to that country—and that he could prove I had intimidated his men. I said he could not do such a thing rightfully and truthfully; and I said, as far as my coming from the penitentiary was concerned, that I did not care that for it [witness snapping his fingers]. I said it just in that way, in answer to his last statement. And I said, "If you tell all the people in McDowell that, it does not injure me in the least, because there is no truth in it, and you ought not to go to that extent." And I asked him to put his fist down. I says I wouldn't raise my fist to any man in the world, and never did, and never would; and he proceeded to say that he would, and cursed, and said that if I intimidated his men again that he would do worse. He then asked me to stay there and he would go and get a man to prove his statement; and I said certainly I would; and he went into a saloon and brought out a man supposed to be a miner who had been in his employ or was in his employ. And Mr. McClaren put the question to this gentleman and the gentleman made a very mixed up effort

to explain it, and I repeated the question in my way, and the man promptly answered and said, "Yes;" and I then turned to McClaren and said, "Now, are you satisfied." I said "That man now tells you the truth, and that is certainly what I told the men." The question was about what I said to the men: he accused me of threatening the men with arrest, and that my actions had intimidated the men, and he put the question in that way to the man, and, as I say, the man made a very mixed up effort to reply; and that was the way I put the question to him: "Did you men not come to me and ask my advice, and you told me that you had been threatened to be put of house and home if you didn't go to work contrary to the orders that I gave when I inspected the mine?" And he said "Yes." And I says, "Was not my answer to you that if you lived up to my orders that I would not have to prosecute you men as well as Mr. McClaren for violating the orders of the mining department," and he promptly answered, "Yes;" and I turned to Mr. McClaren and asked him if he was satisfied. I said, "That is my duty—to tell your men that. They came to me and told me you had threatened to put them out of house and home." And I says to this other man, "Didn't I tell you I didn't want you to tell me anything about being put out of your houses, because I didn't have anything to do with your houses?" and he answered "Yes, sir," to that.

Q. Now do you recall what particular fault you were correcting in the mine when you made these assertions?

A. Certainly; I could not forget that. Do you want me to give them?

Delegate Strickling: Yes, sir.

A. I had received a complaint—by the way, the only complaint that I have received since I have been an inspector—from the workmen, that the furnace at the mine, when they came to work, sometimes was not fired up at all, and that they absolutely could not work in the ventilation in the mine. I never have told, and I don't wish to tell who those men were that came and made the complaint, because they most piteously appealed to me never to make known that they came to me. Now, I never mentioned that fact to anyone there until the truth came out, because I did not intend to make mention at all that any workmen had come and complained to me.

Senator Kidd: Q. I would like to ask you right there if those workmen are afraid to make complaints of that kind—afraid of being discharged?

A. There is no doubt about it at all: it is almost heartrending to see how men are afraid to speak to or approach an inspector at all in many places. Now, I proceeded to that mine and made an inspection, and my anemometer would not move at all at the pit mouth, or at the intake, or the air current, neither at the top, bottom, nor either side of the mine where I went; and at the working places where these men were working—a number of them—it was exceedingly bad and dangerous, and I was most anxious to get away and get out from the closeness or to the main entry. And I did as the law required me to do—kindly requested the man to stop working, and, of course, he was not only glad but very willing to quit.

Q. At this point is when you told the laborers that they were throwing themselves liable if they didn't obey your orders?

A. I did that, and I did it in the most kindly way, and my object, too, in telling that was, to instruct them in their part of the law—that they should not re-enter these working places without proper ventilation was made, or until I had appeared and approved the condition of the working places before they went into them; and my reason for giving these instructions was because my duties are such that I have got to give some kind of instructions, or they might be put back to work the next day without my knowing anything about it.

Q. And that is what superinduced the difficulty between you and Mr. McClaren?

A. Yes, sir; and he cursed and said I was an informer and had done other things I had never done at all, and said things I had never said at all, and that is what made me angry.

Q. What was the name of this mine?

A. The Slick Rock mine, right there at Welch.

Q. What was the system of ventilation in this mine?

A. A furnace—and a very rude furnace.

Q. And the furnace was not going on that day?

A. It was going on that day but it was poorly constructed and it was absolutely worth nothing on that day.

Q. Now, you say the company put these men back to work the next day?

A. No, sir; I did not say that.

Q. Well, did they do it?

A. No, sir.

Q. Did the men quit work when you ordered them out?

A. They did.

Q. When did they go back to work?

A. I haven't any personal knowledge of any of them going back to work at any time, but I can tell you what I do know about it; I can explain it.

Q. What I am trying to get at is, did you call the company's attention to this at once?

A. The mine boss was with me during the entire time, and I met the general manager at the incline when I came out of the mine and talked with him thoroughly.

Q. What steps, if any, did the company take to correct this fault?

A. Well, the first steps that they took to correct the fault with me—so far as I am concerned as inspector, was—Attorney Anderson, who was a partner in the firm of Rueker, Anderson & Hughes, I believe, came and talked very nicely and asked me if I would again visit the mine the next day. I said certainly; that I would be pleased to do so, and that I had left those instructions—for them to let me know any time they thought they had the working places in proper condition, and I would be glad to come back and make another examination, if they doubted their own ability and knowledge of whether the conditions were right, and wanted me professionally. And we had a very nice talk, and I requested Mr. Anderson to accompany me to the mine. I had several objects in making that request, and one was that I did not want to meet Mr. McClaren and probably have something to occur, and I thought Mr. Anderson was treating me very fairly. He treated me very nicely, and agreed with me that he would see the actual truth, and the true conditions, and that it would do a whole lot of good and convince the company that I was right and not doing anything wrong. I went the next day with Mr. Anderson—that is, the next day after he called on me. This was a number of days after I made the first inspection; and that day that we went was a very nice day, and altogether different from the day on which I had inspected the mine. I called Mr. Anderson's attention to that, and that there was an improvement made on the furnace smoke-stack, and a great deal better fire, and while my anemometer did not move again at the pit mouth, yet when I went in some distance where it was wider, I got a register there, and made an inspection, and came out of the mine and had another little talk with Mr. Anderson, and the substance and result of it was that they wanted me to grant permission for the men to go back to work; and I said to the mine boss, in the presence of Mr. Anderson, "The best that I can do is that I will have no objections to the marked places;" (I had marked the places where I had no objections); that I had no objections for them to place the men to work, provided—and I emphasized the word "provided," and distinctly requested the mine boss to note the instructions—provided that he would get the ventilation that I found on the entry sufficiently close to the working places, so as the law would be complied with. That was the very best results I could get on that visit.

Q. Did Mr. McClaren send the men back in accordance with what you said?

A. I was then called away on some other business, and I went to my headquarters, and from that moment until the present time I have been exceedingly busy and have not given any further attention whatever to that case; but I have had it in mind ever since and wished to visit the mine last Monday. I intended to visit that mine and take another inspector with me, but my business prevented me from going.

Q. How many men were working in this mine at the time you ordered them out?

A. Something like twelve or thirteen. But you must remember I did not order all these men out. I just stopped each man individually as I found him working in his place contrary to law, in a place that was unfit to work in. The mine boss must have stopped about five of the men, and did it voluntarily without my request.

Q. Was this a large mine?

A. No, it was a very small mine.

Q. If the method of ventilation used at that mine at the time was put in proper condition, is it sufficient and ample?

A. In my opinion, decidedly not, and I told the company so six months prior to that inspection, and tried to impress it on them at that inspection.

Q. Did you make a report of this to your chief?

A. I made a report.

Q. Of those facts and those conditions?

A. Of all the facts I thought of and thought necessary at the time I made the report. I could not just recall all that I put in that report. But I made what I considered a correct and proper report at the time to Mr. Paul.

Q. Now, you spoke in your examination, when Mr. Kidd was interrogating you, about some difficulty you had with the Bottom Creek Coal & Coke Company?

A. Well, don't understand that I said in answer to any questions that I had difficulty there.

Q. Well, that you were treated discourteously, or something to that effect.

A. I was not treated by any means in the way I think an operator should treat a mine inspector.

Q. What I am trying to get at for this Committee is for you to point out to this Committee wherein you were badly treated?

A. Well, in the first place, without any reasons whatever, I was blandly told by the general manager that he had no doubt I was there at the personal and direct instigation of Governor Dawson for the purpose of harassing his company and other coal companies, because they opposed Governor Dawson in his policies of State government. It decidedly humiliated me and made me feel badly. I did not know how to express myself but I thought it was very improper and ill-mannered and certainly decidedly foolish for a general manager to approach a new inspector the first time he ever met him in his life in that way, when I was treating him courteously and properly. I answered and said: "Do you know Governor Dawson? Have you ever met him?" He said "No." I said "If you knew the man you certainly would not talk that way and I am exceedingly sorry to think that any coal operator would have such an opinion of Governor Dawson." I said, "If you will believe me, upon my honor, Mr. Patterson, I assure you from what I know of Governor Dawson I believe he would peremptorily demand the chief inspector to remove me if he knew I was taking any undue advantage of you and if I was using my position of inspector in any way to cause you any inconvenience for anything you have done in the past."

Q. Was this before you entered the mine?

A. No; I had inspected the mine the day before. It was my first meeting with the general manager. I had inspected the mine—that is partly—had made a one day's inspection—the day before.

Q. Did you find that this operator was complying with the law?

A. Oh, no; he was not complying with the law.

Q. In what particulars, Mr. Warner, was he violating the law?

A. The ventilation was not proper and the matter of loose roof was decidedly neglected; there was entirely too much coal dust in the mine and it was not watered properly; the proper means were not adopted to water it.

Q. Were you calling his attention to these matters when he talked to you in this personal way?

A. At this time that he made this statement to me I had called at his office by appointment of the preceding evening. I made arrangements to be at his office the next day and to have there the mine boss himself and his brother who was assisting him in the general management, and I was going over the map and showing him what a very exceedingly bad method of ventilation he had, and was discussing that with him; and that he had only one current of air passing through the mine and it was being taken in on the opposite side of the mountain. It was being taken through all the old workings before it reached any of the men employed in the mine. It is known as a gaseous mine, to some extent, and I showed him how exceedingly dangerous it was; that any gas accumulating in these old workings, with the ventilation coming through the old workings first, would bring new gas that would accumulate on the naked lights and cause a fatality and probably kill all the men in the mine; and then it came out the main haulway

road to the fan; and of course my object in showing him all this was to induce him to and have him see the wisdom of reversing that air current, and that is all I asked—that it be reversed. I considered that was enough for me to accomplish then, and that was the only thing I asked to have done, knowing, of course, a great many other things that ought to be done. Then on my next inspection I went through the same procedure in regard to other improvements.

Q. Well, by the way, did he correct this ventilation?

A. He promised to and I made arrangements that he should keep me informed of the progress of the changing, and I kept myself informed, and I think I would be safe in saying that it was six or seven or probably eight months afterwards before he got this one single improvement established, and all this time I made an effort not to bother him about any other improvements until I had that one improvement finished or accomplished.

Q. Is that a large mine?

A. That is a very large mine.

Q. What system of ventilation did he have?

A. Fan ventilation.

Q. But the objection to it was that he was bringing it through the old mine—the old part of the mine?

A. Bringing it through the old workings of that mine.

Q. And when you were calling his attention to this in a gentle way he then seemed to treat you as an interferer rather than an officer?

A. His entire disposition and his expressions were such that I was an imposter trying to force something very wrong upon him, and that Governor Dawson was the man who was responsible for all of it; to say nothing of the many foolish and really wrong arguments that he made against my arguments to carry out that part of my instructions—such an argument as trying to convince me that if they reversed the air current as I requested they would lose half of the air volume. Another argument was, if they reversed the air current as I requested, that it would cause the mud to fall off one side of all the brattice throughout the mine; and I will say it was exceedingly hard for me to keep my temper, with these arguments. I do not know whether he was making them with the express purpose of causing me to get angry or not but I did keep my patience all the way through.

Q. Now, did he correct the fault as to the roof or remove this loose slate?

A. No, sir.

Q. Did you ever attempt to prosecute him?

A. Well, it would be necessary to explain the situation in answering that question.

Q. That is what we want to get at—the facts and the condition of things.

A. At the time of my second inspection was when I took up the question of loose roof and dust and I went through the same program and requested a conference with him and his brother, the mine boss and the assistant boss, and went through exactly the same procedure of offering my propositions, and in a kindly way to show why these things should be looked after, and pointed it out as being an absolute necessity and that, if I should perform my duty as the law required me to, I should absolutely send for Mr. Paul and request that the mine stop and not another ton of coal should be operated until it was made safe—until these working places should be made safe. I pursued the policy of not asking to have the mine closed, using it as an argument with them that I was certainly violating my duty to look at it in that way; but I said, "If you will promise to put the men to work and let the mine boss go ahead and do this work as rapidly as he possibly can, and promise to accept my advice by not placing the men in any one of these dangerous places I call your attention to, (talking to mine boss) until you have got it safe and have taken that loose slate down, I will call it satisfactory to put the men to work. But you must get the dust off of these roads and get them sprinkled. I don't want to close your mine down because it will cut down your production and cause a great financial loss, but," I says, "if you have a catastrophe you may kill all the men in your mine;" and I called his attention to the fact that the accidents that he was having exceeded the number of accidents in any other mine in my district, and that it would cost him a whole lot more than if I closed his mine down or succeeded in closing his mine until these matters were fixed up

than it would possibly cost him if I succeeded in having his mine closed until these improvements were made. Now during all of this discussion I was impressed from beginning to end and all through the discussion with an exceedingly mean disposition on their part towards me in discussing these matters; and, of course, I learned afterwards that every effort that he knew of he was resorting to to thwart my efforts in having these instructions carried out.

Q. Have they been carried out?

A. From that day to this I have done exactly as I did after my first inspection. I have been doing my part as I best know as an inspector to keep in touch with the progress of that mine being improved and that the men are carrying out my instructions; and I intend to go back to that mine as soon as it is possible to get back to make another inspection and do the best I can again.

Q. Did that company make any promise of complying with your demands and requests?

A. They certainly did; they made promises that they would do these things.

Q. You haven't had time to be back there since to see whether they have been made? Is that the way I understand it?

A. Well, I have not had an opportunity to go back and make a proper inspection and look after the thing thoroughly to see whether they are being made, but I have had time to learn a good many facts.

Q. Now, you speak of this mine being peculiarly afflicted with accidents. What was the nature of those accidents and what superinduced them, principally?

A. Just recalling from memory and from my reports, I would say that the number of accidents of men maimed and killed by this loose roof that I called their attention to, was the worst, and there were a good many accidents—a great many more than should have occurred, in my opinion—from blown out shots and men being burned by those blown out shots. Those two causes are the worst.

Q. Did you find any regulation in that mine in the use of powder prescribed by the law, and when it was taken in and in what quantity?

A. Yes, sir; on the first inspection it was like a general practice to take the powder in in any amount at all—twenty-five pounds at a time—and shoot any old way; and I did all I could on that. And on the second inspection I found lots of shooting from the solid, but the mine boss assured me he was doing all in his power to prevent it. I did all I could to impress upon the mine boss that he must prevent it and my report will show what I have done over there in compliance with the law upon those matters.

Q. What kind of haulage do they have there?

A. Electric haulage.

Q. Was that the same as in Mr. McClaren's mine? Was that electric haulage or what?

A. Mr. McClaren's mine had mules to pull the coal out.

A recess was here taken until 2 o'clock p. m.

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#### JANUARY 24TH—AFTERNOON SESSION.

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The Committee reassembled at 2 o'clock p. m., all the members being present.

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The examination of WILLIAM WARNER was continued by Mr. Strickling, as follows:

Q. Mr. Warner, when was it that you had the difficulty with Mr. McClaren?

A. I could not name the exact date unless I would look at my reports; it was just a short time before being called to the Monongah explosion.

Q. When was it that you had the trouble in having the Bottom Creek Coal & Coke Company to adopt your rules and comply with your requests?

A. By looking at my report I could tell the exact date of that, or about when it was. It was a few months ago—probably in November, or it may have been the latter part of October or the first part of December. My report will show that exactly.

Q. Now, in making these reports out to the chief inspector are you in the habit of giving a minute description of all these matters that you think ought to be corrected in mines and what you did towards correcting the same?

A. As minutely as my judgment at the time would direct me.

Q. What instructions, if any, have you from your chief as to the reports you are making?

A. Well, my instructions from the chief are that I should report the actual facts and nothing but the facts.

Q. Well, now, you are furnished by the mine department with a blank for the purpose of making these reports on, are you not?

A. Yes, sir.

Q. Do the inspectors feel that they are limited to those blanks?

A. I do not; I don't feel that way.

Q. Have you ever had a general meeting of the mine inspectors, together with the chief inspector, since the new law went into effect?

A. I have attended several.

Q. In these meetings are the questions of reports and so forth discussed?

A. A great many questions have been discussed at meetings at which I was present.

Q. And was it at these meetings where you got your information or your directions from the chief as to the character of the reports he wanted you to make?

A. I have received much information in these discussions at the meetings, and in my talks directly with the chief, and a great deal of information and a great many instructions through my communications with him.

Q. Then, as I understand it, the district inspectors are instructed to make reports of all important facts happening within their districts, pertaining to the service?

A. Yes, sir; that is my understanding, and I follow that out to the best of my judgment.

Q. Now you spoke of having some difficulty with some employees and officials at another mine—I believe you called it the Houston mines?

A. Yes, sir; the Houston mines.

Q. Will you kindly tell me the nature of the trouble at those mines?

A. Well, in doing my work and entering the mine considerable of my time was taken up by unnecessary explanations of the superintendent, and I endured them to the fullest extent and consumed considerable time in listening to these explanations, and a great deal of time was taken up with these explanations, and I had to insist on being permitted to investigate the matters that the law required me to investigate. It finally came to the point where I was compelled to say that I wanted to go and investigate these things, and every effort was made to keep me from going on and investigating these different things that the law required me to investigate, and that naturally led to sharp words and heated arguments; but I proceeded and investigated what I wanted to find out.

Q. What did you find?

A. I found a method of mine development that in my judgment was plainly contrary to the law. For instance, the law requires breakthroughs to be made not less than every eighty feet or brattice cloth to be used to ventilate that place properly. The plan of development did not permit the driving of places within three hundred feet of each other; in other words, six hundred feet apart. They could not be connected in less than three hundred feet if the connection was made from each side; exactly one-half way should be three hundred feet. I called the superintendent's attention to that, and in a perfectly mild and reasonable manner, and he just flew into all kinds of rages and cursed the legislature that passed the laws and the inspectors who attempted to enforce such laws.

Q. What was that superintendent's name?

A. Benjamin Lewis. And many other statements were made of a personal nature, in other ways, all intended to rile up a man's temper to the very worst.

Q. About when was this, Mr. Warner?

A. I would have to refer to my report for that; I could not come within a month of telling just exact to dates.

Q. Do you know whether the company has carried out any of your demands towards righting these matters in the mines?

A. I was unable to secure any satisfaction, whatever, at that time by myself, but I made a report to Mr. Paul of the facts. Mr. Paul agreed with my suggestions, or approved my suggestions, and sent me assistance—two other inspectors—and I carried out his instructions to the word, which was nothing more nor less than the requirement in writing that my requests would be carried out and that the law would be complied with, and we secured that over his signature—Mr. Lewis signed that paper—and since that time I have made it my business to know whether it was carried out. My knowledge of whether or not it has been carried out is that those places were stopped—not driven in that way any more—and what places are being driven, are being driven in accordance with the law.

Q. Mr. Paul promptly responded to you when you communicated to him your difficulty?

A. He did most heartily and most satisfactorily.

Q. I will ask you to state if the department has always shown a disposition to enforce the law, as far as you know?

A. In answer to all my requests for advice or instructions, and in all my communications with the chief inspector, I have received all the support and every word of instructions and advice that I could expect to receive, and I haven't anything but the heartiest of approval to give to every word of communication that has ever passed between us in every way.

Q. Now, Mr. Warner, those are the only three mines that you mention that you had particular difficulty about?

A. Oh, I have had others.

Q. In your district?

A. I have had many others.

Q. Are there mines in your district where the operators seem to cheerfully take up any suggestions you may see fit to make them?

A. Yes, sir; and I am glad to say so.

Q. Can you name any of those mines?

A. Yes, sir; I can and I am glad to mention them, too, because they deserve the credit of being mentioned: The United States Coal & Coke Company, the Empire Coal Company—Mr. W. D. Ord, general manager—and the Pulaski Iron Company. And my dealings and work with Mr. L. E. Tierney and Mr. J. J. Tierney have been most pleasant after the first meeting. Mr. J. E. Jones is not in my district, but my dealings and work with him are equally satisfactory and as pleasant as the others. I might mention many others, but I cannot just recall them all. I would like to make mention though of every one, if I could recall them.

Q. So it is just part of the operators in your district that have been obstinate in carrying into effect the rules and regulations prescribed by the department?

A. All direct obstinacy and opposition to my work or to the enforcement of the law, I am glad to say, is, in my opinion, much in the minority. I have very good reasons to believe that there are some others who do not directly oppose or object or who are not obstinate, but they follow a policy that is against the enforcement of the law, just because of impressions and understandings that they receive from those who, in my opinion, are directly obstinate. But to put them all together, I would not say that they are in the majority by any means.

Q. What particular feature of the law have you found the operators not complying with, or those of them that do not comply?

Witness: You mean what particular part of the law is mostly violated?

Mr. Strickling: Yes, sir.

A. That would be pretty hard to answer; I believe I would say ventilation, so far.

Q. Now you spoke awhile ago of having difficulty in securing convictions against the owners of a mine and that the justice had really solicited prosecutions of the workers in the mine?



A. I said that.

Q. Was that simply one justice or was there more than one justice who did that?

A. I can say that it was only one justice who actually solicited prosecutions against miners.

Q. Well, now, then, did he solicit that in the way of soliciting business, or did he just casually say if you had any business he would like for you to give it to him, or do you believe that he was actually soliciting you to give him business?

A. There is no question in the world and no doubt but he was soliciting—actually soliciting, as I would understand it, and as I would see it.

Q. Then the trouble lies more in the execution of the law in the courts than it does in the law itself?

A. Applying this answer only to my district, and not knowing the conditions in other districts, undoubtedly in my mind, that is the greatest of all difficulties—to execute the present laws, or any laws that you may adopt. But, of course, I don't want to be understood as saying that I am not in favor of better laws—some addition.

Q. Now you said that you thought more could be accomplished by publicity than anything else at this time. What do you mean by that? How do you mean to make it public?

A. After a most thorough and honest study of the situation, and as I have been required to do from the facts existing in accordance with my duties, I have come to that conclusion—I am forced to that conclusion. My idea in the answering of that question as to publicity was that I meant for all the people to know the truth.

Q. How do you mean to promulgate that?

A. One very good way would be through the public press; if there was any publicity at all of having the public press to do so, but I must admit that that is an utter impossibility in my district.

Q. Why?

A. For the very same reasons, I would suppose, why a justice does not wish any cases against the bosses and employers.

Q. In other words, you think they are under the control of the operators?

A. They are under the control of some circumstances that utterly prevent them from publishing certain news. For instance, a mere mining accident at certain times and under certain conditions will not be published.

Q. Do you get reports from the various mines of the accidents that happen in the mines?

A. I have had much trouble in trying to get reports of accidents, but I am receiving a great many reports of accidents.

Q. Is the condition improving in that line?

A. I can say that it is.

Q. Mr. Warner, I will ask you this question: Before you came on the force you were identified with labor organizations, were you not, to some extent?

A. I intended to make a request of this Committee to make a statement on that line, and I will be pleased to answer that question. I was connected with the United Mine Workers of America for a number of years, as an officer, both State and national.

Q. Now, did you ever feel, or do you now feel, that possibly some of the opposition that is shown against you by operators is because they think you are influencing their labor in any way?

A. I regret as much as any man living, and as sincerely as any man living, that that is true. I regret as sincerely as any man living that any employer should think so. I have done the best—from the bottom of my heart—to destroy any doubts or any suspicion in the mind of any employer I have ever had to deal with.

Q. As a matter of fact have you ever assumed in any way to influence their labor?

A. To the contrary I have used every effort that I am capable of using to keep any one from thinking that I would be partial and in favor of labor as against the employers, and *vice versa*. And I have endeavored to occupy a fair position away from either.

By Delegate Duty: Q. Mr. Warner, do you have any fears of instituting proper prosecutions against either the miners or the mine owners or the officials of mines?

A. As for me personally, and as an inspector, I never did have in my life and never had since I have been an inspector, the least fear of any bodily harm to come to me for the performance of my duty, and can conscientiously and seriously say that I never shall have, no matter what the result will be or might be. I would like to add to that that I have had men who were deeply interested in my welfare to discuss that matter with me, and I regret that I learned that men who are deeply interested in my welfare have thought so. My answer to them has always been the same answer that I have given now; I have said to those who have come to me to discuss that matter that I recognized the probability of it, but no matter how probable it would be, it has never caused me to fear.

By Senator Kidd: Q. Have you had any injunction cases in your district, or attempt to get an injunction?

A. In what was my district (it is not my district now) I made one effort for an injunction.

Q. Did the court act promptly in that matter?

A. It did not.

Q. Were you delayed in it?

A. The first thing that occurred was to delay me for ten days in spite of my efforts and the efforts of my counsel.

Q. Then at the end of ten days what was done?

A. Counsel and I traveled through the worst kind of weather and through the mud for something like six miles. The case was heard at midnight, and I think about 2 o'clock in the morning it was continued, and after the most sincere and honest efforts that I have ever had any counsel working for me in my life, to make, I was made to appear to be the worst criminal and fabricator that any one could try to make me appear; and the court rendered its decision very promptly and unhesitatingly against my application.

Q. What was your purpose in this injunction? What was it to effect?

A. I inspected a mine that was absolutely without ventilation—so much without ventilation that I positively felt I was in danger of my life to such an extent that when I reached daylight I went through the same suffering, you might call it, that a man does when he is affected by working in bad air, and it required some time before I recovered sufficient strength in the open air to walk and make my way to the hotel. The superintendent himself had previously expressed his great pleasure that I had come to inspect the mine, and hoped that I would accomplish the purpose of the law; that he had failed to convince his company of the advisability of ventilation and the installation of a fan, and that it was impossible for him to retain any men he might get to work in the mine, and impossible for him to find men to work in the mine. In addition to that, and from the conditions I actually found in the mine, I had citizens and business men of the town in which I staid, at the hotel, to come quietly and secretly and encourage me by hoping that I would do something for the men living in that town who worked in that mine, and get the law enforced. Men came to me on the train, and when I would step off the train they would offer me encouragement when they knew that nobody knew that they were talking to me, and the situation entirely appeared to me that it was a case in which my duty absolutely demanded me to report to the chief inspector, which I did, and he promptly gave me the necessary instructions, and I endeavored to carry those instructions out faithfully. In compliance with the instructions of my counsel I served the necessary notice the law required, in person; I went there and experienced all kinds of insults and bad treatment, and then we proceeded to court, and, as I stated, we were delayed for ten days, for certain reasons that the court gave. One reason was that he was busy with a railroad case; another reason was that counsel for the company wanted to take a trip of ten days, and I was asked to give my consent; and quite a good deal of effort was made to have me consent and to have my counsel consent, but I positively refused to give my consent or to allow my counsel to give consent because I believed that that would be a serious violation of my duty if I did consent. I took the position that if there was any

delay, the responsibility would have to rest with the court alone. The court set the case for ten days hence, and we appeared and I gave my evidence. I, of course, did not have any corroborative evidence. I did tell the court, though, that I could have produced not less than thirty-five witnesses, and that I had a list of names of people with me that I could have produced, and the counsel for the company demanded those names, and I refused to give them. He demanded to know my reasons, and I said that they well knew the reasons. "You can threaten me with contempt," I said, "but you cannot compel me to give the names;" for I knew better and wouldn't do it under any circumstances. But I volunteered to give the information to the court, and I did so; I gave the names to the court. Of course there were quite a number of witnesses—mine engineers, mine bosses and superintendents and mine inspectors employed by other companies who went on the stand—and the testimony produced was just opposite to mine, making me appear as a very bad man.

Q. What became of the case?

A. The judge ruled that according to the evidence, and the bulk of the evidence being on one side—[Interrupted.]

Q. Well, he declined to give the injunction, did he?

A. Yes, sir; he declined to give the injunction.

Q. Did you have any trouble at Turkey Gap, in a case there about the use of locomotives?

A. Not any trouble, but after a month of effort, consultation and conferences held with the company, I was forced to bring suit to enforce Section 24 of the mine law.

Q. What was the result of that suit?

A. The result was—after giving our evidence and going through with our case—the justice decided that there was no violation of law, and I learned afterwards that the justice had made an examination of the mine of his own accord, a few days before he heard the case, but I did not hear that until after the case was over.

Q. Well, now, do you have any trouble with the newspapers over their publishing things?

Witness: You mean will they publish anything?

Senator Kidd: Yes, sir.

A. They publish nothing whatever of a certain character.

Q. What is the character of things they refuse?

A. Now, that is mighty hard to explain. Time and time again I have seen them refuse to publish information that was absolutely against the interests of the coal companies, as well as in the interest of any one, and they believed it was against the interest of the coal companies, hence they did not publish it.

Q. Here is an extract. [Showing extract from paper to witness.] Did they publish that for you?

A. Yes, sir; the Bluefield Telegraph published that, and I wrote a letter to them. Now, when I answered that question, understand me, I did not mean they never published anything. I did not consider that altogether a fair publication.

Q. Now you say that the chief of the department has been loyal to you in the prosecution of your work at all times?

A. As loyal as I could expect him to be.

Q. So far as you know about the conduct of his office, he has used his best endeavors to administrate them fairly and properly?

A. With me and my efforts, I certainly could not complain.

Q. Now, you have not, in connection with your work as inspector, been doing a little political work along, to find out how operators stood, and who they were for, or anything of that kind?

A. I am not afraid to answer that question. I have certainly done no political work whatever, and as to my political opinions and views, I defy any one to say, by my expressions, actions or otherwise, where I have given offense. I have my political views: that is true.

By Delegate Duty: Q. Mr. Warner, in the discussion made before the court on your application for the injunction were you held up there as an agitator or a friend to your former mine organizations?

A. One of the attorneys for the company, I distinctly remember, made a statement that my counsel took up immediately and stamped it as most unfair, after the arguments had been made. I am unable to recall the exact language; the substance, however, was that they gave to the court the understanding that they were prepared to show to the court the real cause and reasons why I had applied for that injunction. After the evidence was all in and the arguments had been made, my counsel even tried to prevent me, and I could not help myself, simply because I believed I was right. I spoke to the court myself, in a kindly manner, however. I said, "As for me, I am willing for you to open this case and bring in any evidence against me, individually, or as an inspector, or in any other way whatever, and in fact I wish you would demand the evidence." Of course I had every reason to believe that I knew what the counsel for the company referred to when he made that statement, and I think yet that I do know most positively what he meant.

Q. What do you think it was?

A. There is no doubt in the world in my mind. When I was employed as a national officer of the United Mine Workers it became my duty as that officer to transact the business that is necessary for an officer to transact for the miners' organization in the State of Maryland. Among the number of companies that it became my duty to transact business with—to use plain language, we will say there was strike—it ended up in a strike—was the American Coal Company. Mr. Parriott was general manager of that company. I never met him during all that time, and I never saw him that I know of. Upon my oath here and upon my honor as a man, I never knew that Mr. Parriott was in that section of West Virginia, and never knew that he had a dollar invested in that mine, at the time that I inspected it and at the time that I brought the action. I positively know that that is what he had reference to—that I was possessed of a prejudice against Mr. Parriott as a mine manager and as a man, because of those business connections with me in Maryland. The truth was, there was no prejudice whatever on my side, and I didn't know he was in that county or had a dollar in that mine.

Q. Then you consider that that friction between you and him and the operators down in that section is due to their fear of you based upon your connection with that organization?

A. I will positively state that in my candid opinion they only take that as an excuse and as a reason for opposing my efforts; but positively they have no good reason to think so at all. It is a fact that they do take that for a position—some of them—and if you will permit me to extend that answer, I wish to say this to the Committee: Upon my honor as a man, as well as upon my oath, I positively believe and am truly convinced in my mind that I am perfectly capable of not allowing any prejudices that any ordinary man might think I might have, of the labor class influence me, because I was an officer of their organization. I am positively capable of being free of prejudice in their favor, and think my record as a mine superintendent for coal companies, after I quit the labor movement, fully justifies my statement.

Q. I was about to ask this question: Do you feel capable of acting freely between the miners and their employers, and do you do it always?

A. I most positively claim that I do; and further, if I had one single thought in my mind that I could not, I would resign; and there are very good reasons to prove that that is the truth, as I do not hesitate to tell this committee that I feel that the success of Mr. Paul's administration of his department and of Mr. Dawson's administration as Governor of this State, demand and require a man to lay aside prejudices in the performance of his duties, and a man would not be a man to show prejudice to the detriment of the success of the mine department and the administration of this State.

By Delegate Strickling: Q. How many steam locomotives are being used in your district?

A. In the district that I now have there is one at Mohawk, two at Powhattan, and I think two at Eureka, is five, and there are two at Turkey Gap; that would be seven; there are also two at Peerless; I guess that is all in my district. The balance are in District 10.

Q. Now, how high are the ceilings in these mines where these locomotives are used?

A. I guess they will average a little less than six feet, but in some places they will probably run up to seven and a half or eight, and in some places higher than eight.

By Delegate Mitchell: Q. In your communications with the chief of the mine department has he at any time given adverse criticisms of your course of conduct?

A. I don't remember at any time of Mr. Paul criticising me, or reprimanding me, or objecting to my conduct in any way. I don't remember of ever receiving any communication from him to that extent. If he ever did write me, I don't remember it.

Q. Are you still a member of the miners' organization?

A. Never; I could not possibly be; it is impossible for me to be a member of the miners' organization, and I have not been for years—since the time I left my location at Clarksburg, West Virginia; from that day until this I have not been and could not possibly be. On the other hand I have had the miners' organization threaten to strike against a company that employed me as superintendent, and certain officials of the miners' organization have been my most bitter enemies.

Q. Do you believe that labor organizations have been an advantage to labor?

A. I would rather be excused from a discussion of the labor question as I understand it.

Q. I only ask for your opinion.

A. Well my opinion is my understanding.

Q. There is no necessity of any discussion.

A. What I mean by discussion is answering any question. However, I am not a bit backward to give you my honest thoughts. I certainly do believe that organized labor has been a benefit and a great benefit to the laboring man. It oftentimes does wrong; it oftentimes has bad results in certain localities. To speak of it as an institution, as a whole, however, I regret myself to think that there is so much disbelief in organized labor.

Q. Do you believe that the mining interests of this State or of your section would be better and rendered more safe by the employment of organized labor?

A. I would want to qualify that answer to some extent to what the question implies. For organized labor to secure the labor that exists in my district at the present time within their ranks, and to take that labor that is employed there now into the membership of any organized labor body, would, in my opinion, not benefit anything, and if I was an operator of a mine I would oppose it—in my opinion it would be a bad thing. But for organized labor to be employed in those mines, or in other mines—what I mean by organized labor and what I understand labor to be—it would be as great a benefit to the employers as it could possibly be to the workmen.

Q. What in regard to the conditions of safety resulting from the employment of such labor as you speak of?

Witness: You mean organized labor?

Delegate Mitchell: Yes, sir.

A. I wish to be understood, in answering that question, that when I use the words "organized labor" I mean the organized labor that I understand and that organized labor ought to be.

Q. Then, we will say this: The organization that is known by the name of the United Mine Workers, and let that cover what you mean by organized labor.

A. As to the United Mine Workers, why, as a whole, what they stand for and the way they practice their principles that they represent, it would be of great benefit.

Q. Has not this organization the same character of labor in it that you object to in that section of the State?

A. Not under that same condition. I do not know of any locality in the United States where that organization exists that you have the same kind of labor and under the same conditions and circumstances. It might come pretty

close to it, and if it is, then the result is just as I answered a moment ago—the result is bad.

Q. Have you in your work in that particular section criticised adversely the wages paid to the operatives in the mines?

A. I will say most positively and most emphatically I have never done so; and would you permit me to add to that answer?—

Delegate Mitchell: You can answer that question in your own way.

Witness (continuing): I can remember in a few instances of men in the employ of coal companies and representing coal companies approaching me in my work, and they made the criticism that I did not hesitate to say that they were not fit to be employed by these coal companies—after using the language that they did and the criticisms—and then I understood afterwards that they reported and said that I was the one that made those criticisms. I can recall to memory a few instances of that kind.

Q. Don't you consider it your right as a citizen to criticize imposition, or the wrenching from labor of an undue amount of exercise for a living competency?

A. I wish to say and won't hesitate to admit that I have just as much feeling in that direction as the average man. I cannot help but notice those practices, and all that, as much as the average man who is a citizen, and I have every bit of that right; but as a mine inspector, and especially when I was appointed and when the proposition was made to me to accept the appointment I fully realized that if I accepted the appointment that it was for my best interests and for the best interests of the department and for Mr. Paul, and for the best interests of everything concerned in my appointment to work as an inspector and sacrifice that right entirely, and whatever my sentiments and thoughts were to keep them severely to myself. I so placed myself on record in writing when my appointment was offered to me and asked that I be not asked to accept the appointment because of those various circumstances. The appointment was offered to me, however, and I was repeatedly asked to accept the appointment. I was assured that the appointive power had full confidence that I would not use any of my sympathies in the way of prejudicing the employers, and that I could and would deal fairly and impartially with the coal companies, regardless of my thoughts and feelings about the treatment of labor. Acting under those terms, I accepted my appointment.

Q. From your answer, are we to understand that you consider it your chief duty to sustain the department and the administration?

A. I understand my chief duty is to uphold the mine department, and I mean by that, Mr. Paul, as the head or chief, in everything that is right towards the enforcement of the mine laws, and that I have no right, and that my duties actually demand and require of me not to allow any of my prejudices—if you call them prejudices—or anything in that line, whatever, to interfere with that duty in supporting the administration of the department and the enforcement of the law. That is my understanding and I do it.

Q. Do you make the conditions of safety and the general welfare of the men as secondary?

A. I make the safety of the lives of the men, and the health of the men in the mines, my first consideration, and do all that I can to better those two conditions regardless of what their other welfares may be—such as wages, pay, conditions of employment, and so on. I do not consider those things at all but leave them severely alone, because if I even thought of it, it would give grounds for objection to me as an inspector; at least it would be taken by certain people as an objection to me as an inspector.

Q. Have any accusations been made against you for having made any of your reports public?

A. The report of the Pawama injunction proceedings found its way into the public press. I do know of criticisms being made against me for the publication of that report. I answered all criticisms (there were not many that reached me direct) truthfully and honestly and I have even yet no apologies to make for any responsibility that I had in that report reaching the public press.

I will say that I did not publish it and I never sent a copy of my report for the purpose of publication; although I have no apology to offer for its having been published, and that is another reason why I believe that publicity is a great thing because I know the effect that it has.

Q. Do you mean to convey the idea, Mr. Warner, that your report was sent out by the mining department after you reported to it?

A. No, sir; if it is necessary to do justice on that point to the mining department and to Mr. Paul as its head, I positively know that the mining department did not send that out for publication—that is, Mr. Paul did not.

Q. Was it sent from his office?

A. No, sir.

Q. Well, did you send it out?

A. I have already answered that I did not send it out for publication and did not expect it to be published; that is the truth about it.

Q. To whom could you have sent the report who would have been justified under those circumstances in making such use of it? Are you required to report to any one by the law?

A. Do you want me to mention names?

Q. I want to know how that report got out?

A. Well, a certain individual gave it out for publication, undoubtedly, but I was not that individual.

Q. Did you give this report to that individual?

A. I could not say that I gave it to him but I did give it—it reached publication, but it may have reached several hands after that party received it.

Q. How did he receive that from you? How did you transmit it to him?

A. By mail.

By Delegate Strickling: Q. This publication you are talking about was in the matter of that injunction proceeding?

A. It was the exact report of the Pawama injunction proceedings.

Q. A public report?

A. No; I do not take it in that light. My report was made for the mine department; that is true. Now, I am willing to confess here that I did not think there was anything in that report that should not have reached the public press. I believed then and believe now it should have reached the public press, although I did not send it to the public press, and if it was a crime and an offense against the good administration of this department, I am ready to resign right now.

Q. What I am trying to get at is this: It was in relation to the injunction proceeding that was tried before the judge?

A. It was a report of those proceedings—my report—the report that I wrote of it. It was *the* report that I made of the Pawama injunction case.

Q. Now, I will ask you one more question: Did you ever hear of its being a crime in this country to report public proceedings in a court of law?

A. I have hundreds of times been present in court when employes of newspapers were present and given every permission to report all the facts and everything that transpired, and I certainly never did think or even imagine that it was wrong to publish the actual facts that transpired before a court of justice; and as I said, gentlemen, if I can be convinced by the proper parties—by the proper authorities—that I violated a rule and that I did wrong against the administration of the mine department in having any part in the publication of that report, I am willing to resign. I plead guilty to the fact that I sent a copy of that report through the mail—but not for publication—and I did not expect it to be published. I claim I did nothing wrong in doing so.

By Mr. Jackson: Q. After you had this hearing in the injunction proceedings you have mentioned before the judge, did you seek to take evidence to prove that the testimony produced by the company was wrong?

A. So far as I was concerned, as inspector, I did not realize anything that I could do further. Mr. Paul, the head of the department, with two other inspectors, I think, making four including myself, visited the Pawama mine after this was all over. My understanding is that Mr. Paul came for the purpose of in-

investigating or learning whether I had done right or whether I had made any mistake; that was my understanding, and Mr. Paul and these other two inspectors and myself went to the mine and examined the mine, and while I never read the report that each of those inspectors submitted, my understanding is that their reports upheld me in every particular—in all that I had done in connection with that case.

Q. My question is this: After that preliminary hearing, and this evidence was produced in behalf of the company, you never sought to take any evidence to prove that it was wrong or to prove the matter again before the court?

A. I answer that in this way: That I could not see what I could do further, and, so far as I was concerned, as inspector, I certainly did not make any effort, because I absolutely knew the facts about that mine when I inspected it, and from what knowledge I have of coal mines and the coal miner, to say nothing of any knowledge I ever gained in my experience as a mine manager, I thought it was impossible for any human ingenuity on earth to place ventilation in a mine such as those witnesses testified to, by the means they had to ventilate the mine.

Q. Weren't there some witnesses who testified for the company outside of the company's employes?

A. Yes, sir; they so testified on the stand, and they were not employed—that is, they were not regular employes. Of course they were all employed for the purpose of testifying.

Q. And they were men of experience?

A. Oh, yes; and they greatly exaggerated their experience.

Q. Didn't they examine the mine as well as you did?

A. Yes, and no.

Q. I mean didn't they claim to have examined the mine?

A. They testified they examined it as well as I did, but they never did.

Q. And they disagreed with you in your conclusion?

A. Undoubtedly; there was no possibility of ever any one of them agreeing with me in a single word of my evidence.

Q. You don't charge the judge with not deciding the case according to his view of what was right, do you?

A. I believe I can safely say that I never charged the judge with one thing. I never charged the judge with anything.

Q. I am asking you now if the judge decided that case otherwise than in a conscientious discharge of his duty?

A. I would have to answer that, in my honest candid belief, from the bottom of my heart, he decided that case just exactly the same way as Mayor Epline decided the engine case the other day.

[The last foregoing question was read to the witness.]

Witness: I will have to answer again that in my honest and candid belief he decided the case in exactly the same way that Mayor Epline, of Keystone, decided the steam engine question. Now, as to what that was, I have my opinion, as well as any man.

Q. I don't know anything about the steam engine case. The question I put to you demands an answer yes or no. Do you object to answering the question I put to you?

A. I do not

Q. Then will you please answer it yes or no?

A. Oh, I don't know as any power could compel me to say yes or no when neither yes nor no would be the truth. Yes or no would not be the truth, as I take that question, and I am on oath.

Q. I will ask you now whether you claim that the judge who decided that injunction case decided otherwise than he believed it ought to be decided, in the conscientious discharge of his duty?

A. In order to satisfy you and to give you an answer such as I think you desire, I will say it is my candid opinion that circumstances and conditions are amply sufficient under certain circumstances to cause a justice to have that conscience in his way of deciding a case.



Q. Have you given me the best answer you are capable of?

A. That is the best answer I can give you. I will not say that Judge Ritz designedly violated his oath of office as judge to give that decision, but that was the trend of his views and his judgment under the circumstances and the conditions, and the able counsel of the company was sufficiently able to establish such conditions and circumstances in court to cause him to look at it in that way. Now I would like to be able to find words in the English language to express myself plainer than that.

Q. Do you know any reason why Judge Ritz should have accepted your evidence in preference to the evidence of the witnesses for the company?

A. My views on that point are in perfect harmony and sincerity with the arguments of my counsel. I think my counsel honestly and sincerely tried to show Judge Ritz why he should decide that case in accordance with the evidence of the State, regardless of all the other advice on the other side, as to its being a legal proposition. I recognize fully the extreme disadvantage that the department is under such conditions. It was impossible for me to have any corroborative evidence. I was in the unfortunate position of having no corroborative evidence on my side, while they had every advantage on their side to have a thousand witnesses just as well as having twenty. Those were the circumstances and I believe further that the gentlemen in this room fully realize the situation a whole lot better than I can explain and a whole lot better than any language which I am able to command to tell you. Judge Ritz I think will tell you today that I have no personal ill-will towards him, and shook hands with him immediately after he rendered his decision, and have talked pleasantly with him since. I do not blame an individual; I blame the conditions and circumstances that cause such things to occur in a court of justice.

Q. I will ask you one more question on that line, and that is this: A number of the witnesses who testified for the company were not in their employ, and they were men of high standing and character, were they not?

A. In answer to that I would say that I would be the last man in the world to think that they have not high standing, ability and competency in their line. But most positively it is a fact that there is no trouble whatever for a mine manager in McDowell county to find any number of practical mine engineers to put in their mine, after I have inspected it, and absolutely make an adverse report of the mine where I have found absolutely no ventilation and where my anemometer would not move, and they will find several thousand cubic feet of air. Now that is a fact, regardless of their standing and ability in their line, and where, because they have done it, they think they can do it again.

Q. Have you, let the operators of McDowell county, in anything you have said in the past, know the opinion you have of them in what you have said here?

A. I want to say most positively I have no wrong opinion of any of the operators in my district for anything said there, and I never had any reason to tell them so. I have tried to reason with some and have pointed out to them the wrong of pursuing such a policy, and even suggested their sending their own engineer, or any other engineer, in their mine for that purpose; and Mr. Paul stands ready to prove whether my inspection was right; and I have offered voluntarily for them to even let him know, or if they didn't want to do so themselves that I would telegraph to Mr. Paul, or have all the inspectors in the State to come and corroborate and prove my report and my position or show it to be wrong.

Q. I want to call your attention to the fact that what you said a few minutes ago amounts to a charge on your part that no matter what the truth may be about the conditions of the mines, the operators over there in that region can and do get evidence of witnesses that have sworn falsely. Now, what I want to ask you is this: Have you led the operators over there in the past to understand that is your opinion of them?

A. In answer to that I will say I could not have positively let them know in the past, because that was not my position. In answer to the first part of the question, if you understand me to make a charge, the only thing I can say is that I stand ready to substantiate every word I have spoken on this stand, and

am ready to sacrifice my position as an inspector if I fail to fully demonstrate the truth of every word I have said on this witness stand, and I am willing to sacrifice my honor as a man, and you can publish the record of my doing so on this stand, and prove I am doing wrong in stating such things. I am ready to take my medicine. I do not intend to make any charge against any coal company, and I do not understand I was doing so when I was answering all these questions. I merely told the truth in answering the questions presented to me, as best I knew how to tell the truth.

Q. What was your purpose in sending a copy of your report you have mentioned through the mail?

A. There was only one purpose, and that was to carry out my duty as I was told to do it.

Q. Did you have instructions from the chief of the mine department to transmit a copy to any person?

A. No, sir.

Q. Is there anything in the law that requires you to do it?

A. There is nothing in the law that requires me to do it and I never saw anything in the law to prevent me from carrying out instructions I receive.

Q. You say you did not receive instructions to send a copy of your report?

A. I did not give any such answer.

Q. Did you receive instructions?

A. I have already answered that I did receive instructions.

Q. From whom?

A. I refuse to tell.

Q. What was your object in sending out that copy?

A. To carry out my duty as I was instructed.

Q. Were those instructions from anybody connected with the mine department?

A. I refuse to tell. If the committee desires an answer to that question I would then request, as I think I would be entitled, to a consultation. As far as I am concerned I am not afraid to tell you.

Mr. Malcolm Jackson: Now, Mr. Chairman, this witness went on at great length and insisted that he had done nothing to create any friction between himself and the operators and in all matters simply confined himself to the discharge of his duty. Now, he transmits a report, as I understand, criticizing the action of the court over there in the case decided by the court.

Witness: I deny that, Mr. Chairman. I wish to be recorded as denying that statement.

Mr. Jackson: He said he did not get instructions from the chief of the mine department but did from somebody else, and he did this because of his instructions. We would like to know who it is, outside of the mine department, that has authority to give instructions to an inspector that he feels he must obey.

Witness: The best answer I can give to that is that I recognized the power and do so yet and I will say that I cannot help recognizing it as long as I am an inspector.

Mr. Jackson: Q. Will you give us the name of the person to whom you sent that report?

A. I certainly will not.

Q. Were your instructions positive to transmit that copy of that report?

A. They were positive enough for me to carry out the instructions.

By Chairman Gartlan: Q. What time was that letter written, or that report sent?

A. Immediately upon my return to my headquarters, after returning from the proceedings in court, and as soon as I got time to write it.

Q. What time in the month? Was it before or after the new mining law went into effect?

A. Mr. Paul would be a better man for you to get that information from. My records are all at my headquarters at Welch. Mr. Paul's records here would show that. I could not begin to guess the date.

By Mr. Jackson: Q. Was that published in any newspaper in the State of West Virginia?

A. No, sir; I never did see the publication of it; and never did see any newspaper that it was published in.

Q. Do you know where it was published?

A. I heard people talking a great deal about it being published in the "Mine Workers Journal."

Q. Do you know any other journal it was published in?

A. I heard that either the Charleston Mail or the other paper connected with the Mail, published it; that is, I believe I heard people say it was published in that paper.

Q. Isn't it your opinion that it was first published in the United Mine Workers Journal?

A. No, sir; not in the United Mine Workers Journal. My information is that the United Mine Workers' Journal copied it from another paper. I believe it was published over in Maryland also; that is, I was told it was. I guess it was published in a number of States, but I never saw it published anywhere in any paper.

Mr. Jackson: Mr. Chairman, if he says that he got instructions from any officer of the State of West Virginia I do not press the question to have him disclose the name.

Chairman Gartlan: Just one moment, Mr. Jackson; I want to fix the time. Was it before or since the new mining laws went into effect?

Witness: No; that was under the old law.

Mr. Jackson: I was going to say that if you claim that the instructions came from any official in the State of West Virginia, I do not want to press the question at all.

Senator Kidd: I would like to have the name of this party, to see who has the right to give that authority.

Delegate Duty: Let me suggest that the Committee better retire and consult about this. I don't want to make a decision until I know I am right.

Mr. Nugent: State whether or not there was ever any request made to you by any official of the United Mine Workers for anything in connection with your department?

Witness: Never, sir—from no one.

[The Committee here retired, and after a short time returned to its room.]

Chairman Gartlan: Gentlemen, we have decided to defer the decision as to whether Mr. Warner should give the name of the individual until we see the publication itself.

By Senator Kidd: Q. Now, we want to know if you can produce a copy of that publication, either in printed form or as you made it?

A. I can furnish you a copy of my report.

Q. Was that report published just as you made it?

A. I have no knowledge at all about it; I never saw any publication, I say.

Q. Can you produce for us a copy of that report which was sent to some friend, you say, and afterwards published?

A. I didn't say a "friend" or anybody that I sent it to.

Q. Well, whether it was sent to friend or foe, can you give us a copy of what you sent?

A. To the best of my knowledge, at this moment, I think I will be able to give you an exact copy of my report on that case.

Q. Do you know of any one who has a copy of it as printed?

A. I do not know positively of anybody having it just now, but Mr. Paul I guess has my report.

Mr. Paul: I have a report that Mr. Warner made to me on the Pawama case, but I do not have the published report.

By Mr. Jackson: Q. Do you say the paper you sent through the mail was a copy of your report to the mine inspector?

A. What I sealed, stamped and sent through the mail was an exact carbon copy.

Q. That was all you sent through the mail—it was simply an exact copy?

A. That is all—that is all I ever sent.

Delegate Duty: Will you furnish it and hand it to Mr. Gartlan?

Mr. Paul: I can.

Delegate Duty: Will you furnish it and hand it to Mr. Gartlan?

Mr. Paul: Yes, sir.

Senator Kidd: Q. This instruction came from no secret organization whose secrets you are required not to divulge, did it?

A. I will positively answer that in this way: That I am sufficient of a man, in every sense of the word, never to recognize any instructions from any source whatever except a source that I consider a most proper source.

Q. You are not bound by any oath or secrecy?

A. No. I further say there is no one below Mr. J. W. Paul that I would recognize on our force.

Q. How was that instruction given to you—in writing or orally?

A. In writing and orally both.

Q. Could you produce the writing?

A. No; I could not.

Q. What became of it?

A. Well, I certainly would not have any reason to keep anything in writing on record of that kind for any one to read it. I simply would destroy a matter of that kind because there would be no use whatever for retaining it, and I will guarantee you upon my word and honor as a man that there isn't anything that could be more honorable in this State and this State's administration of affairs than everything in connection with that matter. I do not belong to any society of any kind, secret or otherwise.

Senator Kidd: Q. Mr. Warner, you say you sent that report to another party than Mr. Paul. Was that to a person who had instructed you to give it out?

A. I never received any instructions from anybody to give that report or any other report out.

Q. Did you send that report to a State official, or to some one outside the State?

A. I sent a copy to the source of my instruction.

Q. Then you are not responsible for its publication, are you?

A. I have already answered that I never knew it was published and did not expect that it would be published and never saw it published.

Q. Did you direct any one to send the copy to which you refer? Did you accompany that copy with a letter directing after its perusal that it be given to the press of the country?

A. No letter of any kind went with it.

Q. Did the party write to you for permission to publish it?

A. I received no promise from anybody for its publication, and never knew it was published, and never saw it after it was published, if it was published.

The Committee here took a recess to meet at 9 o'clock p. m., at the Hotel Ruffner.

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### JANUARY 24th—EVENING SESSION.

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The Committee met at 9 o'clock p. m., at the Ruffner Hotel, and all the members were present, together with Chief Mine Inspector J. W. Paul, Mr. W. D. Ord and Mr. James Jones.

At the request of the Committee Ex-Governor A. B. Fleming appeared, and after having been first duly sworn, testified as follows:

### Testimony of A. B. Fleming.

Examination by Chairman Gartlan:

Q. What changes have you made in the methods of mining since the explosion at the Monongah mines on the 6th day of December, 1907.

A. I will preface by saying that that explosion was so much of a surprise to us and so great a shock that the company was ready to do anything to minimize the danger in their other mines and in Monongah No. 6 and No. 8 whenever they should be ready to start. Conferences were held as to what could be done, or what experiments could be undertaken which would not likely increase the danger, and the object of which was to decrease the danger in the mines. We therefore, as an experiment, started very soon to require all holes drilled into the coal to be tamped with clay or some non-combustible matter, and I think in all our mines that practically has been pursued since shortly after the explosion at Monongah. We also concluded to try the employment of shot firers in the older and larger mines, and inaugurated that system of firing in what is known as the Shaft, New England and Gaston plants, and later when we start No. 6 and No. 8 we will also have shot firers there—at least unless the experiment should prove unsatisfactory, which it has not done so far. We also, in the mines named, are using masurite, which has so far seemed to be successful. The time we have been using shot firers and the new powder has not been sufficient to fully test the same, especially as to the cost. However, we have adopted that powder and the use of shot firers. We did not consider the cost if it could be determined that it minimized the danger in the mines.

By Delegate Duty: Q. These new arrangements that you have made, with reference to mining, that you have spoken of, are the only experiments so far, are they?

A. Yes, sir; we cannot at this time say distinctly that—. We have not had them in practice long enough to see what the certain effect will be, but we are trying the shotfirers and the powder with the view of determining, if possible.

By Chairman Gartlan: Q. How long have you been using the powder in your mines?

A. We have been using that powder in what was called the tight places or headings much longer—well, I do not know how long, perhaps for—well, I won't say how long; but I did not know that we were using it until after this explosion. It was new to me that they had been using it for these headings, but the use of it was not new so far as it was used in the headings or tight places. The reason for using it in the headings or tight places was that they were more apt to have blown out or windy shots than any place else in the mines.

Q. Well, are you using it exclusively in the mines now?

A. Yes, sir; we are as I understand it.

By Delegate Duty: Q. Do you know anything of the effect of a shot after it has been fired, with reference to the atmosphere?

A. I haven't been in the mine but they report to me that the atmosphere is better but there is less smoke.

By Delegate Strickling: Q. This powder is regarded as a safety powder?

A. It is called a safety powder. I don't suppose there is any powder that is entirely safe. Now, one reason I recall that experiment with reference to the powder is, that there is so much difference in the powders and so much question about these explosions. The government, you know, is at work at that, or talking about it, and there has been considerable discussion; but we are having these explosives tested with a view to seeing what is best. What explosives would suit one mine would not suit another, perhaps. I understand that the nyalite powder is practically out of use because they cannot make very much of it; may be you know more about that than I do. We are using the other. It seems as if the nyalite powder is made by the Dupont people and they have not been able to mix it in quantities of as good quality as the other that I named—the masurite. I learn they cannot mix it; they have not found any way yet to mix it up by machinery and they have to mix it up by hand; therefore the powder—which is termed smokeless or safety powder—is limited in quantity, and I understand that there is but one concern manufacturing the powder that we use. There is another powder called carbonite powder, which is supposed to be a good blasting powder, but exceedingly dangerous to handle, but we didn't desire to use that, and I don't know of any person in our section who is using it.

By Chairman Gartlan: Q. Have you had any blown out shots that you know of since you started the use of this masurite?

A. I have not heard of but one and I will explain that to you, now that you

have asked me. I understand one day this week that they used a dynamite cap in firing a shot which was not a success, and it burned the coal and made a very great smoke. It burned the coal and did not properly fire the shot but made a great smoke when they drilled it out. You could not perhaps call it a blown out shot but it was not a successful explosion.

By Mine Inspector Paul: Q. This masurite requires an especially strong detonating cap, does it not?

Mr. Ord: Yes, sir; it requires a much stronger cap than the dynamite cap.

Witness: I believe that is true. As I was going to say, it burned the coal and heated up the clay with which the hole was tamped, and after about an hour, I am told—I am giving this as it was reported to me by the superintendent, who saw it himself—they drilled the hole out in about an hour and volumes of smoke came out so dense that you could not see the light of the naked lamp which he had—that smoke was so dense from drilling out that hole.

Mr. Ord: The point I meant to bring out was that without proper paraphernalia it was likely to ignite the coal.

Witness: I only know the one instance and I have given it to you. That would be the coal in the hole and not on the outside. It was in the hole that it was burning and not the coal out in the room.

By Delegate Strickling: Q. Have you made any changes in the way of blocking your coal?

A. Yes, sir; I am told they require the miner to block the coal before the shots are fired which it is claimed minimizes the danger of blown out shots and brings the coal down better.

Q. What if any additional cost is it to block the coal before shooting?

A. Well, I inquired about that and the reply to me was that it depended very much upon the man and his capacity to mine. One man would block in a few minutes what another man would take an hour or two in blocking.

By Mr. Ord: Q. It is too soon yet to determine the cost definitely?

A. I could not give you the cost; that is about as close as I could get to it.

Q. You were not called to make a contract price on it?

A. We do not pay anything for blocking; we make it a part of the miners' duty; we simply require them to block the coal.

By Delegate Duty: Q. He gets the same per car?

A. He gets the same per car; yes, sir. Of course it is more work for him but the coal will be brought down better and less danger of a blown out shot. Now, I will say, perhaps it is fair to us all around, with reference to any of these new things we have done, that while I have heard no complaints from the miners about them, I do not know what they might say if work were plenty. We are only running our mines three days in the week, and when work is slack of course you would hear no complaints about blocking coal, or anything else, because there are plenty of men to do the work and more than enough; but whether we would have any trouble on that score if work were plenty I do not know. So far we have had no complaints—at least I have heard of none.

By Delegate Strickling: Q. Since the explosion have you made any changes in your system of watering your mines?

A. I do not think we have made any change in that system; but we have given very strict instructions about watering. We haven't inaugurated—so far as I know—any hose. We haven't, so far as I know, installed any hose for the purpose of watering the tops and sides. If we have I do not know of it. We water with cars—watering cars.

By Mine Inspector Paul: Q. Have you information in regard to the watering car used at the New England mine?

A. Yes, sir; I didn't think of that; they have made a new car there and put a pump on it. I haven't heard how it works but I know they made it and I heard one of the superintendents say he was going up to see it work as he was going to have one made for his mine; but I don't know how it worked. I asked him how it was fixed and he said it was a big car with a pump on it, and if they have hose on it then they are using the hose. I don't know about that. They may have hose in the New England mine, because they have built a car with a pump on it.

By Delegate Strickling: Q. I would like to ask you this, Governor: Would it

be practical in your mines to have all the shooting done in your mines at night or do you work double time—do they run a day and night shift.

A. I do not understand just when they shoot but I do not think it would be practical to do it at night, and I would not see any reason for it, really, especially with the powder we are using.

By Delegate Mitchell: Q. Governor, have you any information as to the igniting of gas after the use of this safety powder?

A. No, I haven't.

Q. You have heard nothing of gas being produced by it—by the powder—which would ignite?

A. No; I haven't heard of any gas being ignited by that powder. The only troublesome shooting that I heard of was the one shot I spoke of. Now, there may have been others that I didn't hear of, but that is all I have heard of.

By Mine Inspector Paul: Q. Are you familiar with the practice at the Underwood mine with reference to the character of explosives used?

A. There are three mines in that region, as I am informed, that are using and for sometime have used this so-called safety or flameless powder; I call it "so-called" because I believe no powder is entirely safe or flameless. The George's Creek mine, at Underwood, used to belong to Farmington people, but it now belongs to the George's Creek Coal & Iron Company. It is a large mine and a shaft mine; I suppose the shaft is 250 feet deep. They have been using it for sometime; I do not know how long—two or three years; but there are two mines on Paw Paw, in our county, not so large as that, and not so old, but about the same depth. They are shaft mines that are using it and have been using it. I was under the impression when we commenced to use it last month that we were the first in the region, but I have learned since that it was used before at those mines.

By Mr. James Jones: Q: Those are gaseous mines—strictly known as gaseous mines—and that is the reason for using it?

A. One of the mines of the George's Creek Company had an explosion a number of years ago and killed a number of people—I don't know how many, a half a dozen or more—and I think they began the use of the powder then. That was an explosion of gas. They were using safety lamps, I think, at the time I went up there, at all three of the mines I have named. They use safety lamps at them and they are known as gaseous mines.

On motion the Committee adjourned to meet Monday morning, January 27th 1908, at 10 o'clock, at the room of the Senate Finance Committee.

#### MONDAY, JANUARY 27, 1908.

The Committee met pursuant to adjournment.

There were present: Messrs. Gartlan, Kidd, Duty and Mitchell, and the Secretary and Sergeant-at-Arms.

Absent: Delegate Strickling.

Mr. John Nugent was also present.

The witness, WILLIAM WARNER, being recalled for further examination, testified as follows:

#### Testimony of William Warner.—Resumed.

Examination by Senator Kidd:

Q. You were appointed to your present position on the first of July, 1907, were you, or about that time?

A. On the 15th of July, 1906, I was appointed under the old law.

Q. Since the first day of July, 1907, can you tell us about how many days you have been actually engaged in inspecting the mines, at and in the mines?

Witness: You mean actually in the mines?

Senator Kidd: Yes, sir.

A. No, I could not, off hand.

Q. Could you tell us approximately?

A. No, sir, I could not. I just attend to my work every day and am as busy as I possibly can be, and that is the best I can do.

By Delegate Duty: Q. How much time, since you have been appointed inspector, have you devoted to the inspection of mines in your district?

A. I can conscientiously say all of my time. Perhaps I might ask a question to get your understanding: Do you mean actual visits to the mines and going into the mines? Is that what you mean?

Delegate Duty: No; I mean just what my question says.

A. Well, I would term inspection of mines—all my duties as inspector were given to it and I would give all my time; I never have fooled away any time since I have been appointed. I haven't fooled away a single hour.

By Delegate Mitchell: Q. Can you give the number of mines inspected by you since the date named in July?

A. Since the 15th day of July, 1907? I could not give it to you unless I would go over my records; I could then give it to you exactly—all the information, from my records,—but not from memory. I can give you an account of every day's work, —Sunday and every day in the week and all about it.

Q. Would you be able from your records as found here in the mine department to establish or enable you to give us evidence of where you were?

A. I could go over these records and make a first rate report of what I did.

Q. How, then, as to the number of mines during that interval?

A. Yes, sir, I could go over the records and give you a right report.

Q. Will you furnish us with that?

A. Just as soon as I have the time. I don't know why I should not if you wish it.

By Senator Kidd: Q. Mr. Warner, do you know Mr. Coburn, who was superintendent at the Stuart mine at the time of the explosion last January?

A. I just know him as a gentleman that I met at Fairmont. From his own talk and that of others I understood him to be Mr. Coburn.

Q. State what if anything you heard him say about what he did at that mine to deceive the inspector?

Mr. Nugent: Mr. Chairman, I don't like to interfere with the Committee, but I do believe this: That a statement of the inspectors as to what they heard in connection with the explosion is not proper. Their investigation would be; and in this case, in particular, it is a matter of not only an inquiry after the coroner's inquest, but there are questions now pending in court in connection with the explosion at Stuart and hearsays may lead to complications, and would do no good. Mr. Coburn can be gotten before this Committee and asked as to any statements he made after he left the company's employ. The question here refers to the time after the other evidence came in. The same inquiry could be made as to what inspectors heard as to the condition of the Monongah mine prior to the explosion. There are a whole lot of questions in connection with hearsays; for instance, in the Monongah mine,—and I would like, if hearsay goes, that the inspectors be recalled as to what they heard,—as to any statements they heard made by individuals in and around the Monongah mine as to the dangers existing in the Monongah mine prior to the explosion, which would have no weight as far as the evidence is concerned.

Senator Kidd: Now there is one reason why we want this information. Mr. Coburn was examined before, while employed by that company, and his statements were directly in favor of the company. I had every reason to believe at the time that employes sworn in the presence of the employers were not divulging the truth in all particulars, and it became so plain to me that I asked the Committee to absolutely refrain from taking any further testimony of employes in the presence of the employers, and in that request I was joined by the Attorney General I believe that some of them perjured themselves, to be plain. Now, we are merely taking the statement of a man who swore that certain things did not exist, who has since said that they did exist, and if he wants to come in and contradict it, he can do so. This is simply for information and not to aid any one in the prosecution of suits. I understand there are forty-five civil suits pending as a result of the explosion at the Stuart mine, and I further understand that these people who are prosecuting these suits are fully armed with testimony. I only regret that we



cannot get the witnesses they are going to use, but they absolutely refuse to give us their names, because, they say, if they would even make known to the sheriff the names of the witnesses to be used, they would get after these witnesses at once and run them out of the country. Now, I have been led to believe that there was a spirit of coercion, and I want to get at all these matters, if I can do so.

Chairman Gartlan: The point is this: That this man was making these statements in a general conversation—he was not making them under oath—and why should we introduce them as evidence here?

Senator Kidd: Simply to show that under coercion he has sworn one thing and now he says another; and I want the truth of it.

Chairman Gartlan: He might say he had been "stuffing" those inspectors for his own purpose, or say anything he wanted to.

Mr. Nugent: I would say, in addition, that I would like, if this inquiry is going on, that the Committee would have Mr. Absalom, who was the inspector of that mine, before it and also Mr. Coburn. If a witness under oath would make any of these statements, then the Committee undoubtedly would have the right to fetch in the evidence of this man in whose presence he made the statement. If he comes before the Committee and makes a denial as to the making of this statement, the Committee would then have the right, I believe, to get him here. I believe it would be well, if the Committee makes an investigation of this matter, to have both Absalom and Coburn here. I feel anxious for the whole thing to come out. I have nobody to shield in the matter, but I do say that Coburn should come before this Committee, in the light of the evidence now before it, as to the contradictory statement, and put him on his oath. And I think also that Mr. Absalom should be here. If on the stand he testifies to the contrary, then the evidence as to the making of that statement would be competent, but in the absence of Coburn and Absalom, who are parties in connection with the matter, and upon whom rests the responsibility of that explosion, if anybody can be held responsible for it, it is incompetent; and this Committee would have the right to examine both Absalom and Coburn so that they may judge of the truth.

Chairman Gartlan: I would suggest we defer asking further questions along that line until we get Mr. Coburn here.

Delegate Duty: If you want to impeach him, I think the proper way is to bring him on the witness-stand and ask him questions.

Witness: I heard him say something about him having an engine during the night before to take away the cars from the mine, and then how he got up early and went to the mine and turned away a lot of men—if I remember correctly, I think he said fifty some, telling them that there would be no work that day; and he laughed and seemed to be overjoyed about it. It kind of astonished me, and I said, "You certainly could not fool an inspector that way. He would be able in inspecting the mine, to see how many working places were working, and each working place would have to have an employee." "Oh," he said, "a couple of drinks of whiskey would fix the inspector," and that was all I heard him say.

Q. Look at the letter dated November 16th, 1906, purporting to be signed by you, and say if that is a report you made to the chief mine inspector about the injunction case heretofore referred to by you?

A. Without going through the contents, I can recognize it as my writing.

Q. And that is the report that is supposed to have been published?

A. Only from what I hear; I never saw any publication of it and do not know anything about it ever having been published.

Q. Do you care to have this report go in the record of these proceedings, or a copy of it?

A. Why, Senator, when I wrote that report I wrote it with all honest intentions, believing it to be the truth, and that it was my sincere duty to so report, and I haven't any doubt that with experience I might write perhaps what you might call a more diplomatic report, but it is the contents of my honest heart.

Q. I mean do you have any objection to a copy of it going into the record?

A. Undoubtedly I have not; I haven't any objection to it going anywhere to be read by anybody, because I honestly intended what I said.

Q. Now, do you still prefer not to give the name of the party who directed you to send the copy of the record to him?

A. All questions in reference to the person giving me any instructions of that kind I positively decline to even talk anything about at all, simply because there was nothing wrong about it; there was everything right about it. As my conscience dictates to me, I have done no wrong, and I am not going to answer any questions at this time, and I am sorry I went as far as I did on Saturday. There should not be any suspicions, Senator, about anything that is honest and right, and I stand to it. Everything about it is honest and right, and it is wrong to have any suspicion about it. I would like to make this request, as my conscience tells me the purpose of my examination on Saturday was with the object of bringing out the facts as to the difficulties confronting an inspector in enforcing the law. One injunction case bearing on it is the steam engine case. There is another case in mind as important as anything I was asked about. I think in justification of myself and the way many questions were put to me outside of this Committee, that I have the right to tell the truth and all the truth, as I have had the misfortune to have experienced those circumstances. In the beginning of my appointment as inspector—in starting in on my duties in that country—having all the seriousness of the situation, and difficulties to be confronted, portrayed to my mind as they were, I consider these circumstances serious offenses against an inspector and against the mining department and against good law, and against the administration of State affairs. A very prominent man, to my mind—he was the most prominent at that time that I would have to do business with—it is a little different now—was Mr. Rawn, the engineer at that time of the Pocahontas Coal & Coke Company. I was introduced to him as such on my first day in the district. His title, his position and all I had heard about him, impressed me. He was a most powerful man and a most important man. Of course that would impress me with certain ideas about him. He approached me and called me to one side and said he wanted to talk privately to me. I tried to be as courteous as I possibly could be, and listened to what he had to say to me. He proceeded to inform me that his company and many of the other large coal companies in my district requested him to make an investigation as to my standing—as to my past life and all about it; that he had made that investigation, and that he had found I was an exceedingly bad man, to his mind, and the mind of the coal company; that I had been connected with labor organizations and that I had something to do with his strike in Maryland; that I had even been in prison; and he said he hoped that I would not take any offense at his telling me this; that he hoped I would fully realize that under those conditions I was in a very bad place; that the coal companies would hold me under suspicion; that I would be watched; and that if I held any such views or sentiments as I had done during my life, and my connection with labor organizations, I was a very undesirable man; and then he made an effort apologize in a way for his telling me all this, and tried to make it appear that he was my friend in giving me this information. But the whole thing plainly appeared to me to be an effort to intimidate. Now, I was impressed in that way. His language, his manner, and everything, impressed me that it was a hint for me to get out and leave, and that I must do as he wished me to do in order to be safe.

Q. Now, after that kind of talk, what kind of treatment did you receive from this gentleman?

A. Well, sir, wouldn't it be better for me to say what I said in reply, and then go to that?

Senator Kidd: Yes, go ahead.

Witness, (continuing): In reply to him—I was very nervous, and it affected me very much. I will say in all my life's experience it affected me more than anything that ever happened to me in my life—I was very nervous; my voice trembled, and I know I was excited. I said "Mr. Rawn, I assure you I don't take offence at what you tell me; I assure you from the bottom of my heart I appreciate anything you tell me. Anything of that kind I would a great deal rather you would tell me to my face than to keep it secret and believe those things, and not inform me of them; but your language and all that you have said to me impresses me that I feel like telling you that that is all true that you have said; I have been connected with labor organizations and I not only had something to do with the strike, but I conducted that strike; it is true, too, that the courts placed me in prison, and you, as a gentleman, ought to know if you have investigated it that

never a citizen in the United States of America was ever put in prison more unjustly; never was a man of more honest and sincere motives placed in prison than I was. Now," I says, "you have my permission as a man to write to the Governor of this State, and if you do not wish to do so, I will do so at your request, and I will assure you the Governor of this State is man enough to give you a copy of every communication he received from me in reply to his request for me to accept the appointment of mine inspector." And I went over with him all that the Governor told me and told him of the time I had been sent to prison as an officer of the United Mine Workers; of my experience in the labor movement, and of my knowledge of the prejudices that naturally exist on the part of some coal companies against any man who has ever had anything to do with a labor organization. And I appealed to him on those grounds that I wouldn't think it would be wise for me to accept the appointment of mine inspector, though I would like to be mine inspector and would like the position. I explained that thoroughly to Mr. Rawn. "Now," I said "it is not necessary to go into further details. The result was I accepted the appointment of inspector upon my sincere promise and honor as a man that no sympathies that I ever did have or could have for or against labor or for labor men would cause me to be the least unfair in my doings with coal companies." And I told Mr. Rawn that I was neither working for the coal companies nor for the labor organizations; that I was working for the State of West Virginia; that I honestly worked for labor organizations when employed by them, and my record would prove that I honestly worked for coal companies, as superintendent, when employed by them, after having left the labor movement, and that now I intended honestly to perform my duty as a mine inspector, and would be sincerely sorry if any of the coal companies suspietioned me otherwise, and that I could not possibly allow any conversation of that kind or expressions along that line to intimidate or influence me in the least in any way. Whatever suspicions they would have of me no matter how they treated me I would positively endeavor to enforce the mine laws as I found them and according to the conditions I found in the mines. After that I knew he was my arch enemy and would not speak to me and would not recognize me, and invariably where I went on a first visit to mines, I would realize the experience I had, and the horror it sent through me, because I would talk to them and get acquainted with them as they would accompany me through the mines, and I would notice their feelings and dispositions, and repeatedly many of them even insisted on my going to their homes for dinner, and I complied with their invitation. I can recall several occasions at the dinner table in the presence of superintendents' wives and their families when the superintendents would say "Mr. Warner, I have a secret to tell you. I am surprised, and I want you to know it (looking across the table at his wife) Mr. Warner don't appear the man we were told he was." I was surprised, and asked what they meant, and they proceeded to tell me that this very man Rawn had spent hours in their office telling them what a terrible man I was and how they should be prepared against me when I came. It seems that it went ahead of me, and they were working against me in that line, and I think it is proper that this committee should know this. I think in justice to myself and in justice to the State, these things ought to be known.

Q. Is this gentleman still in the employ of that company?

A. He lost his position shortly afterwards. He was also connected with the Pawama injunction case against my efforts to enforce the law there, and for a long time he had no position. He is now general manager of a coal company in my district—a very small company; the mine or mines are very small.

By Chairman Gartlan: Q. How many mines have the Consolidated Company in your district?

A. This was the Pocahontas Coal & Coke Company I had reference to; they have no mines; they are a land company. But they have a great deal of influence over the mines. In his position he had a great deal of influence.

Chairman Gartlan: This question you can answer or not, but we think as you have mentioned the matter several times that we might have it. Senator Kidd will ask it.

By Senator Kidd: Q. In order to place you right, since you have spoken of having been put in prison, if you care to do so you may tell the circumstances and what charges were preferred against you?

A. If I should live to be a thousand years old I would never be ashamed to tell that. Never a blush of shame has gone over my countenance because of that. The charges against me and about sixty others of the most honest, upright men living in the State of Maryland, many of them living in this State today, were for rioting, unlawful assembly and inciting to riot, and agitating the public mind, and so on; I think there was something like twenty charges altogether in the indictments. I think it is fair to tell you that the indictments were brought by a special grand jury—the only special grand jury ever called in that county—and a great majority of the grand jurors personally gave us information that each and every one of them were compelled by the worst kind of force, and intimidated to bring those indictments. We had the very best lawyers to defend us and we were absolutely innocent of any and every charge. But, on the contrary, this is what we were guilty of,—and our attorneys did everything to prove it—we were guilty of going right out on the streets of the town at the time this was supposed to have happened, but we kept the peace. There was an army of policemen, many of whom were employes of the companies, with badges, sworn and deputized to make arrests. They were the absolute breakers of the peace, and spent hordes of the company's money in the saloons. We compelled the saloon keepers to close their saloons, and witnesses on the stand testified especially to my going into a crowd, for instance, and asking them to keep order. Understand, I was staying at a hotel, and for a time did not leave the hotel, but I could hear the noise and I appealed to my associates and said "This is not the place for us to be." Many of them tried to even hold me back, and said, "If you go out on the street you will be convicted; you will be blamed for any trouble that may occur." And I says "I don't care if I am blamed for murder; I am going to do what my honest conscience tells me is right," because I knew that my presence on the street would quiet the people if I went out. So I would go into the crowds wherever there was any scene of trouble and wherever two men would get into heated words together, and I would touch them on the shoulders and ask them for God's sake and for my sake and the sake of the miners' organization, to be quiet. There was absolutely no disturbance, except a man whom the coal companies employed, who was a lawyer, who was convicted for many crimes and offences, and, by the way, I might state he was a brother of a State senator who was my associate. That State Senator resigned his position and came back to assist me in the trouble, and his own brother was a lawyer employed and paid a large fee by the coal companies, and he was the one who created this disturbance. There was nothing occurred absolutely except when he came from the hall some young boys hooted at him and he commenced to run across the street to the hotel, which was a short distance away, and as he entered the hotel there was some one tripped him and he fell, but never was hurt. In fact that is the only disturbance that occurred. But we were convicted, and ten of the jurors of the twelve that convicted us immediately signed a petition on the promise that that petition would be secret, and it was kept secret. No one ever saw it except the Governor of the State. They absolutely said in that petition that they were threatened by public officers—some of them being business men—that they would be run out of town and their business would be destroyed if they did not convict especially me. Of course they convicted thirty more with me. The Governor of the State—and in justice to his politics, I will say that he was a Democrat—was one of the best men I ever saw in my life. He stood nobly by me and did all he could to keep me from entering that prison. Of course he did not prevent it, but he got me out mighty quick.

Q. By a pardon?

A. He was asked to pardon me by such men as M. A. Hanna, Senator Quay, Senator Stone, the Governor of Pennsylvania and the Governor of Ohio—such men as that made special trips to his mansion and talked with him and plead with him for hours to write out a pardon; and, I am told, with tears in his eyes he said that he was willing and that he was anxious to do so but the circumstances were such he could not do it. The circumstances were these: He was ambitious to be United States Senator; and even President Cowen of the Baltimore & Ohio Railroad Company,—so I understood from his own lips—the Governor told me that himself—shook his finger before his nose and told him he would never be United States Senator if he pardoned us out of prison. The whole object was to break the strike—the

strike was on. He never granted a pardon on those grounds, but he got us out of prison. As to how he got us out, I am willing to tell you.

Senator Kidd: Just let us know how you got out.

A. Well, we were got out, and I tell you we were mighty glad when we did get out, and I shall always feel proud to know of the support of the good people we had with us, and I shall never be ashamed of having been in that prison. I will tell you how I got out. All I know about it is this: That at twelve o'clock at night—if you ever visited a prison—I know none of you ever were in one to know how it is like—but if ever you have visited a prison you can appreciate this. All the prisoners in the prison were mightily afraid that some one was going to be punished. At twelve o'clock at night an electric charge was flashed, a large lever was pulled and the doors were thrown open. Well, that often occurred,—the taking of some prisoner out to punish him—and I want to say they administered some of the most terrible punishments you ever heard of. Of course I never thought for a minute that it was I they were after; but along came a guard and he almost scared me to death; if I had been suffering with heart disease I believe it would have scared me to death. He looked through the bars, and he says to me "Is this Warner, the labor leader?" and I said "Yes." "You are wanted." "What for?" I asked. I thought I had been violating some prison rule, but I had tried to be a model prisoner in order to prove to the convicts that I was an honest man. I knew that my wife and children were worrying themselves to death about my situation. He spoke kindly to me and says "Don't be afraid; it is all friendly; come immediately to the big gate and I will let you through; the superintendent wishes to see you." I hurriedly got dressed, and away I went, and all the other prisoners were up on their elbows, looking out at the cell doors, afraid that I was going to be punished; and they all liked me; I know they did. Well, they took me down in the superintendent's office, and the superintendent offered me a cigar. They do not permit you to smoke, and that was the only smoke I had there from the time I entered. He says, "On your life and honor as a man don't you breathe a word;" and then he proceeded to tell me that a prominent man had called that afternoon and instructed him what to do—that he had given him those instructions. I was so overjoyed, I could hardly write out a telegram. He says "You write out a telegram and I will see it is sent." But that was against the prison rules; no telegram or letter was allowed, no matter if your mother died. I could not send a telegram or letter only once a month, and only one at that. The superintendent was very humane to us, but was not with the other convicts. I sent that telegram and the telegram was to a lawyer in Baltimore and that was our greatest difficulty, to get a lawyer to represent us. Every lawyer employed to take our case would drop it in less than twenty-four hours. But we found one and on a writ of habeas corpus we were taken to court and immediately released. The reasons why we were released were on questions of law, and I guess there ain't another case in the United States like it. There was a mistake in our commitment written out by the clerk of the court or sheriff, and we were released on that ground.

By Senator Kidd: Q. So they have sought to use that against you in this State in some instances, have they?

A. Yes, sir, but I have always laughed at it.

By Mr. Nugent: Q. After this case happened weren't you employed by a coal company in our State whose general offices are in Baltimore?

A. Sometime after that I was presented with a request from the president of one of the coal companies. We found during all of this time, of course, that he was a good man and we always knew that he had a liberal mind. I was presented with a request and he asked me to take the position of superintendent, or general manager you might call it, over all of their property in this State, and named a salary. I named a salary so high that I did not suppose he would accept it—in fact I was sure he would not accept it—but he even increased that two hundred dollars, and I took it and was employed by them three years. And I was removed from that office, and after being removed they continued to send my salary check for nine months. I was removed from the position and they still sent the salary for nine months until I refused it, and that is very interesting how that occurred.

Q. That was in this State, wasn't it?

A. In this State—in Preston county—and the same old thing came up in that.

Q. Another question: In filling the position for the coal company did not the miners try to go after you as hard as the operators did before?

A. The miners held mass meetings and demanded my discharge, and positively refused to work under me simply because I was trying to enforce the rules of the miners' organization in the mine. I would hold meetings with them and tell them, "I don't want you to do anything contrary to the rules of your organization, and I will discharge any man that violates them," and I enforced those rules. I do not talk about that for anything else only to show the mistakes of the men in organized labor. It don't cause me to think any ill of organized labor, however.

[Mr. Paul subsequently furnished the Committee with a copy of Mr. Warner's report on the Pawama injunction proceedings, which is in words and figures as follows:]

#### WARNER'S REPORT ON PAWAMA INJUNCTION PROCEEDINGS.

(Copy)

DEPARTMENT OF MINES  
State of West Virginia.

Welch, W. Va., Nov. 14th, 1906.

Mr. J. W. Paul,

Chief Mine Inspector,

Charleston, W. Va.

Dear Sir:—

The following is the report of the injunction proceedings against the Pawama Coal & Coke Co. to date:

Our counsel considered it very necessary that a legal notice be served upon the Company; consequently I served that notice myself on said Company. I met the General Manager, Mr. Parrott, and General Superintendent, Mr. J. C. Stras, on the train near their mines, and served the papers.

They begged, pleaded and argued, and then became abusive, charging me with discriminating against them, of acting toward them with prejudice, and demanded that I inspect their mines again the next day, claiming that they had placed their mines in good condition since my inspection.

Finding that their policies availed them nothing, they became very threatening, and tried very hard to intimidate me into withdrawing the proceedings, and threatened to have all of the private mine inspectors of the Pocahontas Collieries Co. to inspect their mine and to prove in court that their mine was in good condition.

I appeared yesterday with counsel in court at Princeton, Mercer County, to present the application for injunction. A damage case was in progress before the court, of a property holder against the Deepwater Railroad, involving only a few hundred dollars.

The court stopped long enough to endeavor to have counsel on both sides agree to a postponement to some future date. As I understood the law, I positively declined to agree to any future postponement and that the responsibility of the case not being heard would have to rest with other authority than the mining department.

The court stated that he would be busy for a month, and that if he heard our case at all, he would have to hear it at night.

The counsel for the Pawama Coal & Coke Co. stated that he had to leave the city and would not return before the 22nd of the month, and perhaps not until the end of the month, and that he had a number of witnesses to call, experienced engineers, private inspectors and uninterested men who were prepared to testify that their mines are in good condition, and that the facts, as charged in my bill of complaint, were not the conditions as existed in their mine.

The court then stated that it was a serious duty that the State officers had to perform to enforce the law, but that it was also a serious matter to close down a coal mine, as it would entail a serious loss to the owners and that he would hear the case on the night of Nov. 23rd at the Princeton Court House, Mercer County.

We are confronted with the following circumstances: A court that will postpone the hearing for such a length of time that it practically kills the effect of the law and entirely disables the Inspector to follow the case.

I have now spent four full days on this case and it will require as much more time to finish it, and the loss of so much time cripples my regular work. And the

expense, which my counsel will be obliged to incur by such postponement, will consume more than his limited fee, allowed him by law, and the result is, no lawyer will take a case for the mining department.

Besides, a coal company in this region is able to bring unlimited number of witnesses, who are willing to testify anything, against the State and at the behest of the coal company, that if the court decides the case according to the preponderance of witnesses (as is entirely likely), it will be useless to make any application for an injunction.

It is proven beyond doubt, that it is not only true, as the Governor has stated, "That there are coal companies who have no regard whatever for human life," but they stand ready to use perjured evidence to thwart the efforts of the State to enforce the laws now existing for the health and lives of the workmen.

Surely this is ample reason for the mining commission to recommend that the present laws be revised.

During my time in Pocahontas during the West Fork mine explosion many of the employes of the Pocahontas Collieries Co. appealed to me for advice as to the safety of said mine. Realizing that an expression of mine might result to the detriment of said Company, I advised employes to return to work, and many lawyers and numerous citizens, many of whom had relatives killed in said explosion, have come to me for information regarding the condition of said mine. I have refrained from saying anything that might injure the said Company. Now they allow their Inspectors to come in to this State to assist the opposition of the enforcement of *our* laws.

At this time I know that said mine of the Pocahontas Collieries Co. is exceedingly dangerous; that employes are being carried out overcome with bad air; and that two bodies were brought out of said mine last week and buried; and at this writing I have good reasons to believe that there are from ten to fifteen bodies in that mine not recovered.

I write you this to show you the unprecedented effrontery of these people.

I submit to you the following suggestions, if you wish me to continue this case to the end: No use of sending but one inspector to help corroborate my evidence, as it is a question if the entire inspection force of the State would be accepted by the court in preponderance of the witnesses that will be produced by the company.

As the company contends that they have put the mine in good condition since my inspection you may wire, or write me, if you wish me to make another inspection to learn if you have performed a miracle by putting air in that mine without a ventilating fan.

Let me have your instructions at once. I feel that it would be best to drop this case at the present stage and prepare to take the next case to the highest court, and see if a circuit court can not be compelled to hear an application for an injunction without such an unreasonable postponement, or to fight the case to the end.

I wish you to advise me further regarding the expenses necessary to push such a case through the court. If the expenses, so entailed, are to be included in my regular monthly expenses it will greatly reduce the amount allowed me by law to carry on my regular work. The expenses of this case so far, personally, amount to about \$15.00, to say nothing of the expense of my attorney, paid by himself.

Another matter, regarding the holding of inquests, as provided by law, when necessary. It is plain that the coal companies intend to hold their own inquests without giving the mine inspector an opportunity to be present, and taking particular caution that he will not be present, and to select their own jurors and proceed in every particular contrary to law.

I would also call your attention to the fact that these counties have no finances and in case an application for an injunction is refused there is no way for the attorney to collect his fees according to law.

Awaiting your advice upon the matters herein referred to.

Yours very truly,

(Signed) WM. WARNER,

District Mine Inspector,  
Welch, W. Va.

P. A. GRADY, a witness of lawful age, having been first duly sworn, testified as follows:

### Testimony of P. A. Grady.

Examination by Senator Kidd:

Q. What position do you hold in the State of West Virginia?

A. I am Mine Inspector for the Twelfth District of this State.

Q. What territory is embraced in your division?

A. The mines are principally in Mingo and Logan counties; there is one mine in Wayne and one mine operated at the present time in Logan in my district.

Q. What is your age?

A. I am twenty-eight years of age.

Q. What experience have you had in mining?

A. I started as trapper when I was ten years old and went on up as driver, track layer, miner and fire boss; and I did mine foreman's work. I have also done some mine surveying about mines and drafting for mines.

Q. Have you taken any training in mining engineering, or at school?

A. Yes, sir; in the last ten years I have studied mining in different books at school—enough to enable me to get a certificate to do mine surveying.

Q. How long have you been a deputy inspector?

A. Since the first of July, 1907.

Q. Where were you just previous to this appointment?

A. I was in McDowell county employed as fire boss.

Q. Mr. Grady, I will ask you if you have encountered any trouble in enforcing any law as it is now upon the statute books, or rules promulgated by the department, since you have been a deputy inspector?

A. I have had some little trouble, not a great deal.

Q. Do operators show a disposition to comply with the law and rules in your division?

A. They show that disposition; yes, sir.

Q. You may state if you have had any serious trouble with them in that respect?

A. The most serious trouble I had was with one superintendent to whom I outlined regulations as to solid shooting. He refused to comply with them at first and it was not until I threatened him with prosecution that I would notify Mr. Paul to come and close the mine down that he complied.

Q. Well, is he living up to it since?

A. Well, he wrote me a letter in my office that he would comply with all our regulations and since that time I have not inspected his mine.

Q. How many mines have you under your control?

A. Approximately about fifty-eight.

Q. How often do you go through them?

A. Well, I haven't made a second inspection of them yet.

Q. Do you spend most of your time in the mines when you are not away on occasions like this?

A. Yes, sir; either in the mines or doing office work—writing to the different coal companies.

Q. Do you find the law deficient in any way and could it be so amended as to facilitate the work and further safeguard the miners and the property of the operators?

A. Yes, sir. Speaking of my district, there were a great many furnaces and I would like it if the law should be made such that these mines would be compelled to install fans.

Q. Their ventilation is controlled by furnaces?

A. Yes, sir; and when I inspect the mines they may have a large fire while I would be there and the ventilation would be good, but I could not tell whether the furnaces would be kept in that way, or not, at the mines, after I left.

Q. Do you find the mines fairly well ventilated?

A. No, sir.

Q. Well, are the mines in your division comparatively new mines?

A. In one county they are all new mines and have been started up, I believe, within the last three years.

Q. What county is that—Logan?

A. That is in Logan; yes, sir.

Q. The Mingo county mines are older?



A. They are older mines; yes, sir.

By Delegate Mitchell: Q. Can you tell us how many mines you have inspected since the first of July?

A. Not correctly; no sir.

Q. Well, approximately.

A. I would say around 100.

Q. What length of time does it take to personally inspect mines?

A. I have had some mines in my district that will take a day to get to them, but when I get there it will only take about twenty minutes to go through, and it will take another day to get away from there. The mines are scattered and the railroad facilities are poor, so I spend a whole lot of time on the road getting to the mines.

Q. I am not speaking of the time spent in traveling but the absolute amount of time devoted to the personal inspection of the mines, and I want you to approximate, as well as you can, upon a general average, the amount of time that is thus consumed.

Witness: The total amount that I spend in the mines?

Delegate Mitchell: Yes, sir.

A. Well, with the exception of the time that I have been here and at Monongah, and at a meeting we had in Bluefield, and sometime I spent in Mr. Warner's district helping him in some cases, I have spent all of my time in the mines.

Q. The object of the inquiry is to ascertain the amount of time spent in the mines. How much time did you have to devote to a mine in this personal inspection—inside the mine?

A. Well, I would say about four fifths of my time is spent in the mines.

By Mr. Nugent: Q. How long would it take you to make a thorough examination of a mine; that is what the Doctor wants.

A. Some mines it takes me two days to examine and other mines I can inspect three a day—very small mines that have just opened up—starting to work say at eight or nine o'clock and working to about five. Some mines it takes two days.

Q. And others, according to your former statement, twenty minutes?

A. Twenty minutes.

Q. What would the average time be in one, now?—would it average one a day?

A. No, not quite; in my district it would not.

By Senator Kidd: Q. But it takes a good deal of your time to travel from your district to get from one mine to another?

A. Yes, sir; as the mines have not been largely developed in my district yet.

Q. In your operations have you found the chief inspector always willing to aid you in any way he can?

A. Yes, sir; he stands by me, and any thing I ask him he replies to promptly and advises me what course to pursue.

The Committee adjourned until 7 o'clock p. m.

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#### JANUARY 27TH—EVENING SESSION.

At 7 o'clock p. m the Committee inspected the office of the Chief Mine Inspector in the capitol building, at Charleston, and found the same kept in good condition.

The Committee then adjourned to meet at the call of the Chairman.

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CHARLESTON, WEST VIRGINIA,  
January 29th, 1908.

The Committee met pursuant to the call of the Chairman, and there were present: Messrs. Gartlan, (Chairman), Duty, Strickling, Mitchell

and Kidd, the Secretary and Sergeant-at-Arms and also Mr. Malcolm Jackson. The hearings were resumed.

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G. S. PATTERSON, a witness of lawful age, having been first duly sworn, testified as follows:

### Testimony of G. S. Patterson.

Examination by Delegate Strickling:

Q. What is your name?

A. G. S. Patterson.

Q. What is your business?

A. I am secretary and treasurer of the Bottom Creek Coal & Coke Company.

Q. How long have you occupied that position?

A. In the neighborhood of four years.

Q. Are you acquainted with Deputy Mine Inspector, William Warner?

A. Yes, sir; I am.

Q. How long have you known him?

A. Well, it is about a year and a half, I think.

Q. Have you known him ever since he was mine inspector?

A. Well, I have known him ever since he made his first visit to our mine; I don't think I met him before that.

Q. Did you see him when he made the first inspection of your mine?

A. Yes, sir.

Q. When was that, Mr. Patterson?

A. I believe it was in August, 1906.

Q. You may state whether or not you saw him before or after he made the examination of your mine first?

A. I saw him just before that time.

Q. Mr. Warner testified before this committee of having received bad treatment at your hands while he was making the inspection of your mine, and amongst other things he testified that you had treated him discourteously and improperly and cursed Governor Dawson. You may state whether or not that is true or false?

A. No; it is not true.

Q. Do you remember whether you had any difficulty with Mr. Warner on this occasion?

A. That subject was brought up in our conversation and I do not know, but I think my brother spoke of it, and I don't remember how it was brought up, but during the political campaign down there, there was considerable opposition to Governor Dawson, and some of the operators opposed him for election. We were not in sympathy with that movement and thought it was ill advised and wrong. There were different political tales circulated about, as there usually are, and among them was one that Governor Dawson had sent a mine inspector there who was not satisfactory to the operators, and that he was to make it as uncomfortable for the operators as possible. Now, that was the talk. Well, in the conversation it came up and Mr. Warner apparently took that as our sentiments in regard to it and it appears has been offended, though we didn't know it. He immediately—well, I do not mean to say immediately—but he took up the defense of Governor Dawson along different lines all the way, as to his political career, and so forth, and I had no idea that he had taken offense at it, and we had no intention—my brother it was that first spoke on the subject—and we had no intention of offending him, and I thought no more of it until I saw it in this report here. Mr. Warner's attitude towards us has been very disagreeable but I did not know that that was the reason for it. He insinuated that we and others didn't care for the lives of our men, and their safety; that we ignored

the law and failed to send in reports of accidents, and so forth; and we felt very much provoked at him, not only on that occasion but on others, but we didn't wish to have any controversy with him, expecting that the matter would be smoothed over and we would get along all right.

Q. Well, were there any sharp words between you and Mr. Warner?

A. No; we kept our tempers in all our controversies with him. Well, there was not any controversy with him; it was merely in his making his recommendations, and so forth—his manner and his attitude in regard to this. I mentioned before about his thinking that we had no regard for our men, and so forth, and that was very obnoxious to us, but we didn't permit that to interfere with our relations with him. Of course it might have shown in our not having been quite as cordial as we might otherwise have been, but we studied not to offend him.

Q. You may state whether or not you threw anything in his way to prevent him from making a thorough examination or investigation of your mine?

A. Nothing whatever.

Q. When he made the investigation of your mine did he make any recommendations to you?

A. Yes, sir.

Q. Do you remember what they were?

A. Well, the first time his recommendations were that there ought to be more sprinkling done and wetting of the dust down, and that we should look after the men that had been shooting on the solid; and also recommended that we reverse our air current.

Q. He also testified that the roof was loose and decidedly neglected. Do you remember of his having called your attention to that?

A. Well, he probably did; I do not recollect; it is not on his certificate that he gave us, but he may have done so—called our attention to it.

Q. He also testified that there was too much coal dust in the mine and that it was not watered properly. Do you remember about that?

A. Yes, sir; that is on his certificate.

Q. He testified that he met you by appointment the next morning at your office, at which time you discussed the air currents and the changing of your system of ventilation?

A. We discussed it at the office. I do not know what time of day it was but it was after he made his inspection.

Q. Did you ever change your ventilating system?

A. Yes, sir; we changed it.

Q. Upon his recommendation?

A. Yes, sir; but we didn't do it the way he intended when he first made his recommendation.

Q. How long was it after his recommendation until you changed the ventilating system.

A. Well, I think the change was completed, I do not know how long—it must have been five or six months before we got it done. If you will permit me to explain, I will say that the change was made by purchasing a new fan and erecting it, building a brick arch, and connecting into the mine, and the work was done in the Fall and Winter, and if it appears to have taken a very long time to have done it that was the reason for it.

Q. Mr. Warner was asked this question: "When you were calling his attention to this in a general way—that is, the changing of the ventilating system—he then seemed to treat you as an interferer rather than an officer?" and his answer was, "His entire disposition and expressions were such that I was an imposter trying to force something very wrong upon him, and that Governor Dawson was the man who was responsible for all of it," and so forth. I will ask you to state if that part of the answer is true or false?

A. Why, it is false.

Q. Has he made any other inspection of the mine since that first inspection?

A. Yes, sir. Could I say something in regard to that? I do not like to see that answer go in in that way. I do not want to accuse Mr. Warner of saying anything that is false, but I think that Mr. Warner misunderstood our

attitude. I do not want to be put in the position of saying that Mr. Warner has told a falsehood in regard to the matter.

Q. He testified that at the second examination he went through the same controversies with you in the office about removing the slate and the dust, and called your attention to the fact that he could, if he desired, have the chief mine inspector come there and shut down your mine, but that he didn't desire to do so, provided that you would comply with his request. That was his answer in substance. You may state if you remember of hearing any such conversation with him or having it with him on this occasion?

A. Yes, sir; he said—he criticised those things and did make some statement of that kind—that if we didn't comply with his requests in that respect that it would be necessary to shut down. I don't remember whether he said the mine or a part of the mine.

Q. Well, you may state if you had loose slate on your roofs at the time?

A. Well, the top part of the mine is very bad and there is more or less off in some places. We keep up with it all the time and watch it, and a good deal of the time we have men on at night taking that slate out. We watch it as closely as we can and think we have done fairly well with it.

Q. Mr. Warner testified that at these discussions you didn't exercise a very kindly disposition to him and he used the following language: "Now, during all these discussions I was impressed from the beginning to end, and all through the discussion, with the exceedingly mean disposition on their part towards me in discussing these matters, and of course I learned afterwards that every effort that he knew of he was resorting to to thwart my efforts in having these instructions carried out."—meaning you. I want you to state whether or not that statement is true?

A. We didn't assume that attitude towards him and we didn't put anything in the way of its being carried out.

Q. Have you had many accidents in your mine, Mr. Patterson?

A. Yes, sir; we had a good many last year.

Q. What was the principal source of your accidents?

A. Nearly all of them were from falls of slate.

Q. On account of the roof?

A. Yes, sir; in the working places where the miners worked there were men who were engaged in taking down the slate to make it safe.

Q. Did you ever have any accidents from blown out shots, by the burning of men?

A. There was one that was reported as a blown out shot. It was a small shot that a man had put in. It had gone in the rib a little and had, it was thought, blown out, but we were not sure about it. The men were burned because they were too close to it; two of them were burned.

Q. After Mr. Warner's examination was there any change made by your company relative to the amount of powder that your men should take in the mine?

A. No; it has always been the same. We have never permitted them to take any more than the amount which the law permits, which is a half gallon canister. We have not permitted them to take kegs of powder in.

Q. He, at his first inspection, said that the general practice was to take powder in in any amount at all—twenty-five pounds at a time—and shoot in any old way. Do you remember whether that practice prevailed at that mine at that time?

A. It did not.

Q. Do you know whether your men make a habit of shooting off the solid now?

A. No; we have been very positive about that and always have been—that they under-cut the coal and do not shoot off the solid—and we have watched it very closely; and from my own observation and from the reports of the mine bosses—of course I don't see a great deal of it, but my mine bosses report that there is very little of it done.

By Senator Kidd: Q. How many men were employed in your mine at the time of this inspection?

A. Well, I suppose there were probably one hundred and seventy-five.

Q. How long has your mine been in operation?

A. Thirteen or fourteen years; I have been there myself only about four years.

Q. Have you ever had any explosions?

A. No.

By Delegate Buty: Q. When did you first meet Mr. Warner?

A. Well, I am not sure whether I met Mr. Warner before he came there to make the inspection or not; it seems to me I did; but when he came there to make the inspection I saw him early in the morning, I think, and I turned him over to the fire boss to take him through the mine.

Q. Had you seen him prior to that date?

A. I think I had but I am not positive; I think I had met him before.

Q. When did you first hear of his appointment as mine inspector? How long was it before he came to your mine?

A. Well, I could not say how long it was before that I heard of it; it was about the time he was appointed, though.

Q. And is it not a fact that yourselves, with other operators, formed rather a poor opinion of Mr. Warner as a proper subject as a mine inspector before you ever saw him at all?

A. Well, I don't know as you could say we formed an opinion about it; we had reports of him—that is, from somebody who had known him—and they were not favorable.

Q. And on his first coming to your mine there was some talk by your brother, in his presence, as to his qualifications as mine inspector, was there not?

A. No; that was not the point.

Q. Will you explain what it was?

A. There was no talk about his qualifications as a mine inspector. The point, as I stated before, was this talk—this political talk—that had been passed around, that Mr. Warner was objectionable and was a man who would not be acceptable to the operators down there and that Governor Dawson had sent him down there because some of the operators down there had opposed him. While it was political talk I did not consider it as worthy of any attention, and I thought that Mr. Warner would stand on his own bottom, and I think so yet. I stated just a few days ago to our mine boss—although Mr. Warner seemed not to get along with us exactly right and his manner was not very pleasant, and the way he made his recommendations was not pleasant—that I thought as soon as we understood him we would get along with him all right, and I believed it, and I expect we will yet; but until this matter came up I was confident we would get along with him all right; we were trying to follow out his recommendations, and if there is any complaint that he had to make it would perhaps be that we didn't do it fast enough to suit him; but we have had a great many difficulties in our way and for that reason didn't do it faster. Our mine boss resigned and gave us fifteen days' notice, and it took us some time to get another man; we got that other man and he had not been there but a short time when our fire boss was appointed mine inspector and he left on two or three days' notice. Then we had to get a fire boss, and the mine boss had to attend to the fire boss's duties in the meantime, so there was delay; and if any of you gentlemen ever have had experience in coal mines you appreciate the delays that it would make for a new man to become acquainted with a large mine, to see what he has to do and what force he has and what appliances. We have depended a good deal on mine bosses to do things, and we have spent on our ventilation, and other things which I have spoken of, in order to improve them, probably twenty thousand dollars in the last year or more. The mine law requires that the air shall be split. Our air was not split and we had that to do and it took a good while to do it. We are doing it but we haven't finished it yet. If he wants to have a strict interpretation of the law we haven't got up to the requirements yet but we are working on them and have had a big force on them ever since.

By Mr. Jackson: Q. Mr. Patterson, when Mr. Warner came to your mines

the first time to make his inspection did you or your brother have any feeling against him at all?

A. No; not at all.

Q. You did not feel that he had been sent there to annoy the operators?

A. No, sir; we hadn't any feeling of that kind towards him.

Q. Now, when he first spoke to you and your brother about the condition of the mine and the making of any changes, was his manner courteous?

A. No; it was not.

Q. And was it due to his manner that this question came up about this talk in the field?

A. That is probably what caused it. It was my brother that made the remark first, but that is probably what caused it.

Q. Did you or your brother use any rough or offensive language to him?

A. No; not at all.

Q. Have you ever done so?

A. No; we have never done so.

Q. He spoke of the fact that when he first went there you were getting your ventilation through the old workings. Had there been any gas in those old workings?

A. No; I never found any gas in those old workings at all.

Q. Have you in good faith tried to carry out his recommendations as fast as you could?

A. We have.

Q. Has there been, so far as you know, on your brother's part and your part, any desire to evade the law or not comply with it?

A. Not at all; we wish to comply with the law in all respects.

Q. Have you ever known on the part of your brother or yourself or the management of the mine any indifference towards the safety and health of the employees there?

A. No; we think that is one of the first considerations.

Q. I believe you stated in answer to a question put to you that at present there is no hostility on the part of your brother or yourself, towards Mr. Warner, and there is a desire to get along with him?

A. Certainly; that is what we are trying to do.

Q. And you are trying to carry out his recommendations and obey the law: Is that correct?

A. That is right.

Q. How close sometimes does that slate break off to the face of the coal?

A. Well, what we call a kettle bottom sometimes will fall out very close to the face, and on some work—that is, pillar work—why, it will break off right at the face, and in a case of that kind we will take it down right to the face.

Q. In the case you speak of of the blown out shot and of those men that were burned were they in charge of the shot?

A. Yes, sir; one of them was.

Q. What was the other one doing?

A. The other one was a track-layer. He had been laying track for this man who had this shot, and they got out of the way of the shot but didn't go far enough; they just went a short distance. It was a small charge of powder and they just went around the corner thinking they would be far enough away but they didn't get far enough away.

Q. Is that the only case of a blown out shot that has come to your attention?

A. That is the only one that we had last year; I do not recollect any other; we may have had some before that but I cannot recall any at present.

Q. Are the men cautioned to take care in reference to shots?

A. They are cautioned frequently and the mine boss and fire boss have orders to watch it closely. I personally warn them frequently and have posted special notices to that effect.

Q. Now, in speaking of the majority who were injured being injured by falls of slate, the falls that occur in working places are due to the failure to post properly, are they not?

A. Yes, sir.

Q. And it is the miner's own duty to post?

A. It is the miner's own duty to put sufficient posting in.

Q. Has the management furnished a proper supply of caps and posts to do the posting?

A. Yes, sir.

Q. And the other men you say who were injured outside the working places were those who had charge of taking down slate.

A. Yes, sir; those that were injured with slate; and there were a few of them that were injured by the falling of coal in the face where they were working.

Q. How is your ventilation now?

A. Our ventilation is pretty good now; it is better than it has been and we are still improving it; but as I stated we have not yet been able to complete the overcast to make all the splits in the air.

Q. Did you have to drive a new entry to change your ventilation?

A. We had to drive two or three places through—that is, they were not entries, exactly; they were rooms; and we had to shoot off the top and make an overcast across the entry. The second overcast, I think, is completed now; it was about completed before I left.

Q. How long does it take to do that?

A. Well, it takes to make one of those overcasts—it has taken us—well, we have been working on that a month, I should say.

Q. What will the installation of your new fan cost you?

A. It will cost something like eight thousand dollars.

Chairman Gartlan: Is there anything else, gentlemen, you want to ask the witness?

By Senator Kidd: Q. What county are you in? Are you in McDowell county?

A. Yes, sir; we are in McDowell county.

The Committee then adjourned to meet at the call of the Chairman.

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CHARLESTON, W. VA., February 3, 1908.

The Committee met at the call of the Chairman in the Finance Committee room of the Senate, and there were present Messrs. Gartlan, Kidd, Duty, Mitchell and the Secretary. Also, Chief Mine Inspector J. W. Paul.

The hearings were resumed by the introduction of

ANDREW ROY, a witness of lawful age, who being first duly sworn, testified as follows:

### Testimony of Andrew Roy.

Examination by Senator Kidd:

Q. Mr. Roy, I believe you were asked by the investigating committee to come to West Virginia and make some investigation of the Stuart Mine, were you not?

A. Yes, sir.

Q. Please state what investigations you have made of that mine and the result of such investigations.

A. Well, I called on the committee in this town and got an order from Senator Gartlan to go up and examine the mine, and a letter of introduction to Mr. Dixon. I went up there and met Mr. Dixon and Mr. Pinkney. I gave Mr. Dixon the letter from Mr. Gartlan and Mr. Dixon asked me if I wanted to go down in the mine. I told him yes, that I wanted to go down in the mine. Mr. Dixon, Mr. Paul, Mr. Pinkney and two other employes went down with me. We all had safety lamps. Mr. Pinkney told me before we went down that there was no fire damp in the mine; that the mine did not make fire damp; that if I had

been raised in England as he had been I would know something about fire damp. Well, I said I would go down and see it anyway; and we encountered fire damp, I would judge about five hundred feet from the bottom on the side opposite the Parral side—on the East side. Mr. Dixon then asked me if I was going any farther and I answered no; that there was no use trying to go any farther with the mine so full of fire damp, or words to that effect. Then we all returned to the bottom and came up. Mr. Dixon, after we came up, asked me if I was coming back again and I told him I was just as soon as the mine was in condition to be examined; that I was sent there to make a complete investigation of the condition of the mine and the cause of the explosion and that I proposed to do it, and I wanted to know when he would have the mine in condition to have it done, and he said in eight days at the farthest—in six or eight days; I just forget which. I told him when I came back I wanted to make a complete investigation of the mine and to ascertain why the mine exploded and to place the responsibility where it belonged regardless of whom it hurt or helped. He turned half way around, raised his head in the air and after a few moments says—with greatly suppressed emotion—"all right." I returned then to Charleston and I reported the facts to Mr. Gartlan, telling him that I would have to go back again and what Mr. Dixon had told me; and he consented to that and I went back, but not then, because as I was starting up to the mine I met Mr. Paul and he told me that he had just returned from the investigation that was being made at Parral and that the mine was not yet in shape to be examined but would be in about another week or eight days. I did not come back for about twelve days—so they would have ample time to have the mine in shape to be examined—and Mr. Paul went with me again. I want to say here that Mr. Paul treated me like a gentleman in every way. The fan was running this time (the fan had been taken out the first time) but the air courses were in bad shape. There had been temporary brattice cloth put up after the explosion to restore the ventilation so as to get out the dead men. That had fallen down, or had been taken down, or torn down, and there was very poor ventilation. There was plenty of air going down the shaft but it was leaking all the way along the entry. The entry had fallen in; so much so that I could not very well crawl over as Mr. Paul could, and Mr. Paul's judgment, I thought, was as good as mine and I asked him to go to the face and see whether there was any fire damp at the face; and he went and found none at the face but he found twenty-four feet of fire damp, or gas, or inflammable air, or whatever you may please to call it, in a room below the face in the entry. When he came back we all three returned again to the bottom. So there was no use trying to make a complete investigation of it because the mine was in no condition to do it. To make that complete investigation it was necessary to come back, and when I came back to Charleston I reported the facts to Mr. Gartlan and told him that I would have to go back again—that I had not and could not get the investigation made under the circumstances, and that now, in the interval, if they would put the mine in shape so I could examine it, I would go and examine the Thomas mine. He hesitated a moment about it and I says, "Well, I can go home and just as soon as the Stuart mine is in shape to be examined I will come back and examine it again and then go to the Parral mine;" and he says, "All right." Now, I do not suppose you care anything about my opinion as to the cause of the explosion.

Senator Kidd: Yes, sir; we want to ask you as to your opinion of the cause.

Chairman Gartlan: Did I understand you to say that you reported those facts to me after your second trip?

Witness: Yes.

Chairman Gartlan: Where?

Witness: Why, it was up a little ways from the State house; I could not name the very spot.

Chairman Gartlan: Now, just a moment. I do not want to take advantage of you, but your bill here calls for examining the Stuart mine on the 12th of March.

Witness: Yes.



Chairman Gartlan: I was not here then.

Witness: You were not.

Chairman Gartlan: No, sir.

Witness: You were present when I made that statement to you.

Chairman Gartlan: Excuse me, now; I was not present here on the 12th day of March; I am only going by dates.

Witness: Well, I have got the dates just as well as you.

Chairman Gartlan: Here is your signed statement. Now, Mr. Roy, isn't it true that you reported to me when you came back on the first examination?

Witness: Yes, sir; and the second one, too.

Chairman Gartlan: It was impossible.

Witness: Now, I am perfectly satisfied that what Mr. Gartlan says he believes to be true and I am equally satisfied that what I have said is true.

Chairman Gartlan: Well, I will ask you how long you remained in Charleston after your second examination before you went to Parkersburg with Mr. Paul?

Witness: Well, the next day, I believe it was. Mr. Paul and I—well, I do not know; I would have to refer to dates before I would be positive about that.

Senator Kidd: If you have any memoranda of dates you can refer to them.

Witness: Well, I haven't them with me. Yes, I have, too. I believe I can refer to some report.

Chairman Gartlan: Well, as near as you can think, how long was it?

Witness: Well, now since you call my attention to it I won't be positive that I did report the second time. I do not want to make any misstatement.

Chairman Gartlan: I do not want you to make one and that is the reason I call your attention to the fact. I am perfectly willing for you to cut that out of your evidence because I am sure you are mistaken.

Witness: Well, until I see further I will say that I will hold that in abeyance.

Chairman Gartlan: If the committee will excuse me, I don't want to put Mr. Roy in a "hole." I want to play squarely with you, Mr. Roy, and I want you to do the same with me. Now, here is a letter dated March 13th, which I hand you. I just want to show you that you did not report to me on that visit.

Witness: Well, we will hold that back. That letter I stand by because that was fresh in my mind when I wrote it and we will let it go in that way.

Senator Kidd: Q. Now, I will ask you to state the conclusions you reached, on your examination, as to the cause of the explosion in the Stuart mine in January last.

A. Well, I am sure it was an explosion of fire damp and that the explosion was intensified by the dust that was in the mine. That was plainly in evidence, because we saw dust that was burned on the props.

Q. Please state what you mean by "fire damp."

A. Fire damp is inflammable air, called by chemists light carburetted hydrogen gas, and it is penned up in the mine's pores—the interstices of the mine. It was formed when the coal was undergoing decomposition and mineralization—when the coal was locked up—and was due to the process of the formation of the coal.

Q. Well, from your examination what do you say about the persons in charge of that mine being negligent in permitting this fire damp and dust to accumulate in sufficient quantities to cause that destructive explosion?

A. Well, there was negligence somewhere or that explosion could not have occurred. If the law had been enforced and obeyed there could not have been an explosion.

Q. I will ask you what treatment you received at the hands of Mr. Dixon and those under him on the occasion of your two trips there.

A. Well, sir, I have no complaint to make; they treated me like gentlemen.

Q. Did you investigate the Thomas mine?

A. No, sir; I was on the way to it—Mr. Paul and I started out—after my second investigation—to go to the Thomas mine and a flood had come at the time and submerged the railroad. Then we took down the river and went up to Parkersburg in a steamboat, and as a matter of courtesy we notified Mr. Gartlan

that we were there and he said that he would call on us the next day, and did, and he positively forbade me going and examining the Thomas mine.

Q. Well, after that did you make any further examination of the Stuart mine?

A. No, sir; I went home after Mr. Gartlan would not allow me to examine the Thomas mine and in a short time I got a letter from him stating that before we went any further he would like to know what I was going to charge the committee.

Chairman Gartlan: Excuse me again. I don't want to "put you in a hole" but I want to say that your memory is bad. I can contradict that statement by Mr. Paul. Now, be careful, because I don't want you misunderstood. Just a moment and I will explain to you, because Paul happened to be present at the conversation and that is the reason this conversation had a witness to it. Now, if Mr. Paul does not say it is as I say it, I will admit you are right; if he says it is as I say it I will ask you to admit that you are wrong. I will state my side of the case when the proper time comes.

[Mr. Paul here gives his recollection of the conversation referred to and the statement made by Mr. Roy is withdrawn.]

By Senator Kidd: Q. How long have you been connected with the mining industry in this and any other country?

A. Well, I was put in the mines when I was eight years of age. My parents emigrated to the United States and I worked in the mines until then. In 1848—or rather my father died and my mother and family came here and in 1850 I started to work in the mines in Maryland, and continued working one place and another, and in all I worked in seven different states. Do you want them named?

Senator Kidd: Well, it don't matter so much. Yes, you may name them so we will know the character of the coal you worked in.

A. I worked in Maryland first and in West Virginia second. I dug coal in West Virginia fifty-three years ago. Pennsylvania was the third, Kentucky the fourth, Arkansas the fifth, Ohio the sixth and I will have to think where the other was. Then, when I was working in Arkansas the war broke out and I returned home to Maryland to enlist in the army and was very badly wounded and had to have three operations performed.

Chairman Gartlan: Pardon me, but I object to that testimony.

Witness: Well, I will leave that out; that has nothing to do with it; that is right. As soon as I recovered from the wound I started to work again in the mines—in Ohio; I believe that is one I missed and I think that makes the seventh. No; Illinois was the other state I worked in. I started to dig coal again in the mines in Ohio and shortly after was made a mine boss, and when the law was enacted in Ohio for the appointment of a mine inspector, I was appointed the first mine inspector in the state, and the first in the United States in the bituminous fields. I held that office—well, I should have said, although probably it is hardly necessary—that I was appointed Commissioner by the Governor, first to examine the condition of the mines and I reported their condition to the Governor after that; and while I was mine inspector—just when I was closing my term, I think, I was appointed a member of the geological survey by Professor Orton, the state geologist. After I was through with that I got many calls from one place and another to examine mineral properties and mines; so that including the seven mines that I have worked in, I have been in nineteen different states either working in mines or examining mineral properties and mines, and two states in Mexico—nineteen states in the United States and two states in Mexico. I can say, and I believe honestly, that I have been in more coal mines than any man in the world.

Q. Have you ever been in the mines of West Virginia—other than the Stuart mine—since you worked here years ago?

A. Yes, sir.

Q. And you are familiar with the conditions in the mines in West Virginia?

A. Yes, sir.

Q. Have you read the law enacted here last Winter?

A. Yes, sir.

Q. What suggestions, if any, would you make that would improve the mining

conditions in this State and further safeguard human lives and the property of the operators?

A. Well, I have jotted down quite a number of these improvements that I would suggest. I haven't got them here, but such as I remember that I jotted down I will tell you. In the first place, to have better labor conditions than exist, I think the law should be amended requiring that all coal should be weighed and not measured. I have the authority of your Governor in his message to the legislature that in some mines the cars are supposed to hold two and one-half tons, while they actually hold four tons, and in some cases six tons, and for all above the two and one-half tons the miners get nothing. Now, that is from the message of the Governor of West Virginia, and I think there should be some law passed to prevent that kind of condition; and I think that after the law is amended that all coal should be weighed and the miners should have the right to put a man on there—as they do in every state—to see the coal weighed, if they want to. I think further that all breakthroughs should be closed up and rendered air tight, which is never done, although it is the law. There should be some penalty and some way of getting at this violation of the law. Not only in West Virginia but in all coal states I have been in, the stoppings are often built of slate and slack and soon settle, and the air leaks out, forming a short circuit, and it is a well known law that gasses come out at the point of least resistance.

Chairman Gartlan: Pardon me; it seems that we have that weighing business in the law now.

Witness: Have you? Well, I think that there should be—

Chairman Gartlan: The law provides for check-weighmen.

[Mr. Gartlan here reads from the new law.]

Witness: They would not be allowed on the scales and there should be some law passed—you don't need to laugh at that, Senator Gartlan. Now, when I was made mine inspector and that law was passed, the first time that the miners elected a check-weighman he was ordered out of the office and the men struck, and wrote me about what had happened, and I told them to go back to work and I would see that they got a check-weighman or know the reason why, but I would not come unless they went back to work. When they went back to work I told the check-weighman to be there when I came and he and the mine manager and mine boss and superintendent were there, and I saw at a glance that they were not very cordial with me; so I called the weigh-master up and asked him his business, and I says, "Go in here and attend to your business;" and the mine manager says, "Stop the mine and bring the mules out;" and he turned around to me and he says, "You can pass all the d—d laws you please but you can't make us run the mines." Well, I talked to him and we asked for an injunction to close the mine, and got it, and then they let the check-weighman on; but I had to have three or four suits like that before they would allow it, and now no one interferes with them at all; and if the miners here were to put check-weighmen on now, it would be just the same as it was in Ohio and other states; so I think there should be some penalty attaching to any coal operator who would refuse to allow a man on the scales, to protect the miners in their right to have a check-weighman.

Delegate Duty: Pardon me; but do I understand that your objection to our law is that it does not provide a penalty?

Witness: Yes, sir; that is it.

Delegate Duty: Senator Kidd is out of the room but I suppose he means for you to go ahead and tell any other recommendations you have to make.

Witness: Well, I had endless trouble getting the law enforced. Remonstrances went in against me to the Governor, and they wanted me removed because I was enforcing the law; but I told the Governor I would enforce that law as long as I was in the inspector's office, and if I couldn't enforce it I didn't want the job.

Q. Now, go ahead with any other recommendations you may have to make.

A. Well, I think that in mines where the haulways extend over a half mile, and electric power is used, that there should be a passageway between the pillar and the rail of at least two and a half or three feet, and it should be kept clean

all the time so that men would not be caught by a train going in or coming out, when they might find it difficult to get out of the way. I see the law provides for little holes to be put in the pillar, which is right; but in addition to that I think there should be a space all the way, for the men to be clear of the engine and cars, and that it should be kept clean. Now, if you will permit me to write you out—I cannot just now think of all I have had in mind—but if you will let me write it out and send it to you, or to anybody you may designate, I will do it tonight.

Senator Kidd: All right; and make that a part of your evidence here.

Witness: Yes; the oath I have taken will include that statement.

By Delegate Mitchell: Q. Mr. Roy, in your pointing out of the participation of coal dust in the explosion, did you mean to convey the idea that that dust exploded or that it liberated its gas—by reason of heat or other means—and added to the volume of gas?

A. That is what I mean. The gas, or inflammable air, or fire damp raised a storm of dust, as it always does, and set that dust on fire; so if there had not been coal dust somewhere, the explosion would not have been perhaps so fatal.

Q. Is it absolutely necessary, in your judgment, for the heat to be of such an intense character, upon the particles, as that which exists in connection with flame, or will a less degree of heat absolutely liberate the gas that is enclosed in the particles of coal?

A. Well, I do not think there is any serious liberation of gas in the fine coal dust. I have made a good many experiments myself—more, perhaps, than anybody else; more than anybody I have ever met yet, anyhow.—with coal dust, and unless the dust is very fine and very dry and contains from 40 to 44% of combustible volatile matter, it will not explode from a blown out shot. I think, too, that there is no time in the interior of the mine, where the air is not in rapid circulation, but what there is fire damp in the air. There is fire damp generated in every mine—no matter how harmless it may be—at least one half of one per cent, and you cannot detect that much with a safety lamp. You cannot detect 2% with a safety lamp, and it takes 5% to make an explosive combination and 9% or 10% is the condition when these great explosions occur. When there is fourteen times the amount of air to one of gas there cannot be an explosion.

Q. It is not a fact that has been demonstrated that carburetted hydrogen will be thrown off at a temperature of 212° Fahrenheit?

Witness: Thrown off in the air?

Delegate Mitchell: Yes, with the particles of coal—small particles? Two hundred and twelve degrees is simply boiling heat.

A. Well, I am not able to say that—I would not call myself an authority on that—but my experiments were made with gasses from every coal mining district in Ohio, and from the Pocahontas mine, and there was but one gas that would inflame without the presence of gas mixed in the air; but when 2% was mixed in the air every one of them inflamed except the Pocahontas gas, and instead of inflaming it was just a mass of sparks.

Q. And what were you experimenting with?

A. Oh, dust; fine dry coal dust. Now, I have drilled holes in entries, or had them drilled by miners, and have dried the coal dust in that mine as dry as I could make it, and I have sprinkled it from near the face of the entry down one hundred feet or more along the entry, covering the hole with an inch and a half of dust; and I pounded the hole in such a manner in the solid that it was bound to blow out, leaving it so that the flame and the dust came out together, and it didn't inflame; but the next time it might have done it. I only made one experiment with it. I wrote the man in England who first proposed that coal dust was inflammable, and told him what I had done and he says, "It might not now—it might not for a dozen times—but it will do it and you will have to come to it." That is what he wrote and I did have to come to it.

Q. Is it your opinion or not that free hydrogen is liberated in a mine from the decomposition of water?

A. No, I do not believe it is. The gas or fire damp that explodes is the gas that is locked up in mine's pores and in the interstices of the coal, and it has existed in every coal mine—no matter how harmless it may be—but in such small

quantities that it cannot be detected with the miners' safety lamp. There has been air collected and analysis made of it and gas found in it. I do think that a little fire damp makes a vast amount of mischief—when there is a little fire damp in the air in addition to the explosive gas at the face or near the face of the mine—and that that intensifies the explosion and makes the concussion so much stronger, and raises so much more coal dust, and that coal dust all takes fire in the flames, and I believe if we could see it that it goes through a mine like a roaring flame of fire; that is, the dust I mean.

Q. Yes, sir; that is right; but simply an inflammable volume of coal dust which may be giving off a considerable quantity of heat is not necessarily covered by the ordinary use of the word "explosion," is it?

A. That is right; but, Doctor, there is no great heat in a coal mine—.

Q. I am not speaking of any other heat except that which may be created by the burning of the particles themselves—or by their being partly burned—and the burning of hydrogen gas.

A. Well, it is during the process of the burning of the dust that it is liberated. I can go into a coal bank now where the dust is very dry and fine, and take a lamp, and pile the dust together and strike it with my hand, and you will see particles of flame flying from the lamp—little sparks as well as flame itself.

Q. Do you mean to convey the idea then that there are particles of the coal dust that are thrown into the flame of the lamp by which there is an explosion?

A. Yes, sir; the coal dust burns and the gas burns. Now, there is another amendment that I thought about making and that is that there should be a chemist provided for by law, who is competent to make an analysis of coal dust and fire damp, and combinations of it, and also to make an analysis of air that is inflammable, or is contaminated by inflammable gas—black damp is what miners call it; carbonic acid gas is what it is; or white damp or carbonic oxide. That experiment should be made. I confess with all the experience I have had that there are some things I don't know and do not think anybody knows, and chemistry would be the best thing to bring in, and I think that Mr. Paul agrees with me on that; and I think further that it would add very much to the sanitary condition of the mines by having a superior class of mine inspectors—men of some knowledge of science—and to that end I would suggest that there should be created a school in the State University for the education of practical miners in the sciences bearing upon coal mining—mathematics, electricity and chemistry—and especially as to the composition of gasses and the analysis of those gasses and everything of that kind. And I want to say this, gentlemen: I understand there is some opposition to or dissatisfaction with Mr. Paul. Mr. Paul is present and I would rather say it behind his back, but I say it because it is true. I say that he is a very competent man. Of all the mine men I have met in the United States I claim he is as competent as anybody. I think he may lack that aggressiveness that I believe I have in part. In fact I have so much of it that all the coal men in the States of Ohio and West Virginia, and all the opposition they might raise, would not make me retreat from a position if I thought it was right. I would die first. That is something I got from my Highland ancestry in Scotland. But in every other respect there is no more competent man than Paul in the United States, and I have seen a great many mine men.

I want to tell you now that there may have been a misunderstanding about me accompanying you. Although I asked fifty dollars and I believe I was entitled to it. I made a proposition—I made several propositions to Mr. Gartlan. One was that I would do the work for nothing and let the State compensate me if they thought I was entitled to compensation. I finally agreed to take ten dollars—he proposed that I could go with the committee if I would take ten dollars a day, and I finally agreed to do that; and to every proposition I made (I want this to go down)—to every proposition I made he would say: "I have no authority to act in the matter but as soon as the committee comes together I will lay it before them and let you know;" and that he would let me know when to start out; and I never heard from him and he never let me know. Isn't that true, Mr. Gartlan?

Chairman Gartlan: Yes, sir.

Witness: And what was the reason for it?

Chairman Gartlan: I was through with you when I offered you a proposition and you refused to take it.

Witness: I will tell you this: If I had been on that commission that explosion might not have happened. By God, I would have gone into that mine and laid down the law to them. There would have been no mealy-mouthed business with me. If I had known that you were through with me then, why I would have quit; but I supposed—as anyone else would have supposed—that if I was charging you more than the committee was willing to pay, when I proposed to do it for nothing I could not see anything in the way—

Chairman Gartlan: That was a dangerous proposition; we have had those things before. I made you a straight proposition and you refused to take it and that was the end of it.

Witness: Well, I believe there was another reason, Mr. Gartlan:

Chairman Gartlan: You have a perfect right to your opinion. The record here shows exactly what was done. I made you a straight offer and you refused it.

Witness: Well, sir, there is no commission would have made me such a proposition, that knows me.

Chairman Gartlan: Mr. Roy, just one more question:

Q. Isn't it true that there were two mines shut down virtually after you left your office of inspector in Ohio?

A. No, sir; every d—d mine in the State of Ohio that was not obeying the laws was in the courts when I left. That is the reason I went down.

Q. Weren't there two mines shut down, after you left the office, for not obeying the law?

A. No, sir, not one of them, Mr. Gartlan. I made them toe the mark and I will tell you that I have no better friends than the operators in the State now.

[The day following the foregoing examination the witness—in accordance with the request of Senator Kidd, heretofore appearing in the record—furnished the Secretary with additional suggestions that are to be considered as part of his evidence.]

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#### MINE LEGISLATION SUGGESTED BY ANDREW ROY.

1. Coal dust should be hauled out of the mine once a week.
  2. The miners should be given the right to appoint a committee to examine the mine if they have reason to believe that there is danger of explosion or accumulations of coal dust but no meeting may be called in a mine for any other purpose.
  3. Strips or cross bars should be attached to cages used for lowering or raising miners so that they can steady themselves in ascending and descending the shaft.
  4. All traveling ways where there is motor haulage should be 2½ feet between the motor rail and the pillar and kept free from all slate or dust or other rubbish.
  5. All doors should have trappers where coal is hauled or men travel through them.
  6. Stoppings should be examined every day and all leakings closed up.
  7. No coal co. should be permitted under a heavy penalty to interfere with the right of a check weighman.
  8. Operators should not be permitted to interfere with the right of miners forming unions and no detectives should be allowed to assault or interfere with organizers. The company who employs such detective should be held responsible in law for injury by violence to organizers.
  9. A State chemist should be appointed to make analysis of gas, dry coal dust, and mephetic air such as black damp and white damp to determine their dangerous and deleterious qualities.
  10. Mine inspectors should be held responsible in law for neglecting or refusal to enforce the same.
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During the Extraordinary Session of the Legislature called by the Governor to meet on the 28th day of January, 1908, the Committee held numerous evening sessions for the purpose of discussing the facts and evi-

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dence so far developed at the various hearings, and preparing a preliminary report for submission to the Legislature. This report was completed February 21st, and submitted to both houses on that day; after which the Committee adjourned to meet at the call of the Chairman.





# PRELIMINARY REPORT

OF THE

## Joint Select Mine Investigating Committee

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Submitted to both Houses of the Legislature February 21st, 1908

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### *TO THE LEGISLATURE OF WEST VIRGINIA:*

On the sixth day of February, nineteen hundred and seven, the following Joint Resolution was adopted:

SUBSTITUTE FOR HOUSE CONCURRENT RESOLUTION No. 5 AND HOUSE JOINT RESOLUTION No. 19—"Appointing a committee of the legislature to investigate mine disasters and report to the legislature."

WHEREAS, On the evening of January twenty-ninth, one thousand nine hundred and seven, a most disastrous mine explosion occurred at Stuart mine, Fayette county, West Virginia, resulting in the death of over eighty mine workers, rendering over forty families, widows and children orphaned; and

WHEREAS, Many explosions have occurred in this state within the recent past resulting in great loss of life and property; and

WHEREAS, The Governor of this state, in obedience to the great public concern and apprehension occasioned by the loss of life in coal mines in this state, prior to the convening of the present session of the legislature appointed a commission to take up the entire subject of mining legislation and report a feasible and practical plan for amending the mining laws of this state, to the end that the health of the mine workers might be preserved, loss of life prevented and property saved; and

WHEREAS, There has never been a legislative investigation of mine disasters in this state, and it is commonly charged that the local investigations of these calamities are not thorough, and it is the desire of the legislature to do what is best after hearing all the facts and after knowing all the conditions, and without charging negligence or fault to any one; it is hereby

### *Resolved by the Legislature of West Virginia:*

First, That a committee of five be and the same is hereby appointed, consisting of three upon the part of the house of delegates to be appointed by the speaker thereof, and two on the part of the senate to be appointed by the president, which committee at once shall fully and fairly investigate;

*Second.* Whether said Stuart mine was being operated in violation of law, and if so in what particular it was being so operated;

*Third.* The cause of the disaster at said Stuart mine and other like disasters occurring in the state within the recent past;

*Fourth.* To investigate fully the bureau of mine inspection as to the conduct and workings of its office;

*Fifth.* To ascertain and report what further legislation is necessary in order to prevent a recurrence of similar disasters, and what further legislation may be necessary to enable the mine inspector effectively to promulgate rules and regulations for the conduct of mining operations and to secure the enforcement of the law and the compliance with such rules and regulations.

The committee is hereby directed to report upon its investigation on or before the eighteenth day of the present month.

Said committee is authorized to obtain the assistance of two persons expert in mines and mining in all its branches and to employ necessary stenographers.

The attorney general is hereby directed to give the committee all possible assistance; and the committee is empowered to employ such other counsel as it may deem necessary.

All expenses of this investigation shall be paid out of the treasury of the state upon warrants drawn by the auditor therefor; the auditor is hereby authorized and directed to draw his warrant for such amounts as shall be certified to him by the chairman of the joint committee hereby created.

The committee is hereby empowered to send for persons, papers and records; to administer oaths, and to examine witnesses under oath.

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Subsequently, on the sixteenth day of February, nineteen hundred and seven, the following joint resolution was adopted:

SENATE JOINT RESOLUTION No. 22—"Authorizing the special joint committee of the senate and house of delegates raised by authority of house concurrent resolution No. five and house joint resolution number nineteen, to sit in vacation and perform the duties required of it in the resolution authorizing its appointment."

WHEREAS, The committee appointed in pursuance of house concurrent resolution number five and house joint resolution number nineteen, has this day reported to the legislature that it is impossible for them to make the investigation required in said resolution and make report thereon by the eighteenth day of February, and

WHEREAS, In said report said committee states that it will be impossible during the present session of the legislature to make such investigation that will be of material benefit in the way of legislation on the subject of mine disasters, therefore be it

*Resolved by the Legislature of West Virginia:*

That the said committee be and it is hereby authorized to sit in vacation and perform the duties required of it in the resolutions authorizing

its appointment; the said committee shall have the power to send for persons and papers, to administer oaths, to employ such clerical assistance as may be necessary in the discharge of its duties, and to do all other things that may be necessary in ascertaining the information required of it in the said resolution authorizing its appointment.

Pursuant to the above resolutions, the undersigned, who, by the respective houses were appointed a joint special committee, entered upon the labors required by the resolutions. Your committee, however, respectfully submits that on account of the vast amount of matter specifically required to be reported, and the great mass of information and data necessary to be gathered for a full and complete report, your committee has not had the time to complete its investigation nor to procure all the information it desires, and that will be necessary for a full, complete and exhaustive report upon the subjects mentioned in the resolution.

Your committee, of course, was not aware at the time of its creation that an extra session of the legislature would be called, or that a report would be expected of it until the regular session of the legislature of 1909, until a short time before the convening of this extra session. About the time the call for the extra session was issued, your committee was requested by the Governor to make such preliminary report as could be made with the data in its possession, to the extra session. In response to the request of the Governor, your committee, as soon as it was possible for it to convene, assembled in the city of Charleston, on the twenty-third day of January, nineteen hundred and eight, and proceeded to take further evidence touching upon the matter required to be reported upon by it, and continued the taking of evidence well on into the early days of the session.

From the time of the creation of the committee, up until the convening of the legislature, your committee has made six trips into different parts of the state, for the purpose of investigating mines and gathering data touching the matters of inquiry.

On the eleventh day of February, nineteen hundred and seven, the committee visited the Stuart mine, in Fayette county, a few days after an explosion had occurred in that mine. On account of the condition of the mine, however, at that time little could be ascertained about it except so far as the committee was able to learn from the testimony of divers persons taken at that time, and testimony subsequently taken at the city of Charleston during the regular session of the legislature.

On the first day of May, nineteen hundred and seven, an explosion occurred at the Whipple mine in Fayette county, and the chairman of this committee called the committee together in the city of Charleston on the sixth day of May to visit the scene of the disaster. At that time the committee visited the Whipple mine, as well as numerous other mines in Fayette, Raleigh and Kanawha counties, and took the testimony of divers operators and coal miners in each locality in regard to existing conditions at the various mines.

On the seventh day of October, nineteen hundred and seven, the chairman called the committee to assemble in the city of Clarksburg, and from there the committee went to the Davis Coal & Coke Company's mine

No. 25, located at Thomas, Tucker county, where an explosion had occurred on February fourth, nineteen hundred and seven. An inspection of the mine was made and the testimony of divers witnesses was taken in regard to the condition of the mine before and at the time of the explosion. The committee procured at the same time and made a part of its record the testimony adduced and proceedings had before Coroner William A. Jones, at Thomas, commencing on the eighth day of February, nineteen hundred and seven.

Returning from Thomas, the committee visited the Century shaft mine in Barbour county, and from there went to Fairmont and inspected Monongah mines numbers 6 and 8, belonging to the Fairmont Coal Company. The committee also visited the mine at Gypsy, and the Pinnickinnick mine at Clarksburg, belonging to the same company. This itinerary ended on the twelfth day of October, nineteen hundred and seven. The committee then adjourned to meet in the city of Huntington on the twenty-first day of October, for the purpose of making a tour of inspection of mines located on the line of the Norfolk & Western Railway.

The committee met at Huntington on the twenty-first day of October and proceeded on its tour of inspection, and visited numerous mines in McDowell and Mercer counties, concluding its trip on the twenty-sixth day of October.

On the sixth day of December, nineteen hundred and seven, an explosion occurred at Monongah mines Nos. 6 and 8 in Marion county. The chairman called a meeting of the committee for the sixteenth day of December at Fairmont, at which time the committee met and visited the scene of the disaster. The mines were a total wreck at that time. The committee found Chief Mine Inspector Paul and twelve district inspectors at work exploring the mines, assisting in the recovery of the dead and looking after the general conditions of the mines. The conditions were such, both of the mines and those connected therewith that it was impossible for the committee to do anything at that time, and an adjournment was had until the fifth day of January, the time set for the commencement of the hearing before Coroner Amos at Fairmont. In the meantime Chief Mine Inspector Harrison of the State of Ohio and three assistant inspectors were sent by the Governor of Ohio to render any assistance they could. Three inspectors were also sent from the State of Pennsylvania, and representatives of the United States Geological Survey at Washington were detailed to visit the scene of the explosion. This explosion at Monongah attracted world-wide attention, and representatives of foreign governments went to Monongah to inspect the mines with a view to deciding upon the cause of the explosion if possible.

On the fifth day of January the committee met at Fairmont and attended the hearing before Coroner Amos. They heard a great part of the testimony, and obtained a transcript of the proceedings had and testimony adduced before the coroner. Before leaving Fairmont, the committee took the testimony of Chief Mine Inspector Harrison, of Ohio, bearing upon the matters in issue.

The committee adjourned on January ninth, one thousand nine hundred and eight, to meet in the city of Charleston on January twenty-third, at

which time the committee assembled, and from day to day took the testimony of divers persons, including Chief Mine Inspector Paul and eleven district mine inspectors, and concluded the taking of testimony on the third day of February, one thousand nine hundred and eight.

In the investigations made by the committee thus far, it has taken more than one thousand pages of testimony touching the matters specifically required to be reported upon; besides procuring many papers, documents, maps and material, which have been made a part of the record, and which tend to throw light upon the subject under investigation. The labor devolving upon your committee is manifold greater than was contemplated by the legislature, at the time of its creation. At that time, the Fairmont Coal Company's mines were regarded as models both in equipment and the means employed to secure safety for the miners. It was even held out to the legislature—when the legislature was attempting to pass a new mining law—that the Fairmont Coal Company had, on its own motion and for its safety, adopted almost all the safety requirements of the proposed mining act, before the act was passed. It seemed at that time the Fairmont Coal Company was ever alert to adopt and supply any machinery which is believed would make the mines safe, and that company felt secure from calamities that had occurred at other mines. Yet, in the midst of that security, and while this company was pointing with pride to its mines as models of equipment and management and safety, there came an explosion, on December 6th, 1907, in Nos. 8 and 6, at Monongah, that in awful results surpassed the greatest explosion in the history of the world, save possibly one. This is given as an illustration of the fact that in our most modern equipped mines, lurks a danger which science has yet to discover. This explosion immediately attracted the attention of operators, chemists and scientists, not only in the different states of the Union, but of the Federal government, and even foreign countries sent experts to ascertain, if possible, the cause of the explosion, and to discover a method of preventing similar explosions.

It was conceded that this explosion was a dust explosion, yet it seems that no one has been able to give all the elements that may be present to create a dust explosion. This reference to the Monongah mines and to the conditions that were thought to exist there at that time are especially made for the purpose of impressing upon the legislature the fact that the legislature cannot reach the cause or provide a remedy which will prevent explosions, until that cause is known. This must be the result of future study and experiment.

Your Committee at this time can only make a preliminary report, giving a perfunctory analysis of the amount of the testimony adduced and the material it has before it. The record is so great that it is impossible for the Committee to digest the evidence and collate and group together the evidence in order to report fully on all the matters required of it. Besides, your Committee feels that it has not had time to procure all the data necessary for a complete and full report. Such a report as contemplated by the resolutions, and as the subject matter admits, can only be made after the Committee has acquired all the evidence possible to be acquired and many days of close, hard work upon such facts.

Inasmuch, however, as the Committee is desired, in response to the Governor's request, to give the legislature a partial and preliminary report of its work and the conclusions so far reached, it submits the following upon the special subjects required to be reported upon:

*First.* Whether said Stuart mine was being operated in violation of law, and if so, in what part it was being so operated."

Your Committee finds that the Stuart mine, at the time of the explosion on January 29th, 1907, and for some time prior thereto, was being operated in violation of the law. This mine was a shaft mine and had only one opening. The law requires that in mines of this kind not more than twenty men should be allowed to work in the mine at one time. At the time the explosion took place, more than twenty men were working in the mine. In fact, at the time of the explosion, according to the testimony, there were about eighty-four men working in the mine. Those conditions seem to have existed prior to June 30th, 1906, as appears from the report of the district mine inspector filed in the office of the mine department, and to have existed until the explosion. Your Committee is unable to say, from its investigation, or the evidence submitted, that this violation of the law caused the explosion, or in any way contributed to it, or that the loss of life would have been any less, or the explosion less destructive, if there had been more than one opening.

Just prior to the explosion a cage filled with men came out of the mine and all these men were examined by this Committee. Their testimony shows that the ventilation of the mine was good and that there was no evidence of danger or gas at the time they left the mine.

*Second.* "The cause of the disaster at said Stuart mine and other like disasters within the recent past."

Your Committee is of opinion that the Stuart mine explosion was a gas explosion. There seems, however, to be a difference of opinion as to the cause of this explosion. On the one hand it is claimed that the initial cause was a blown-out shot which ignited gas that seemed to have been present in the mine, or that was developed by the shot, causing the explosion. On the other hand, it is the opinion of the chief mine inspector that the ignition of gas occurred in room No. 4 off of third left entry, commonly known as "Dick Lee" entry, and that it was caused by a blown-out shot, but that the gas was ignited by an open lamp. So it is apparent to the Committee from the testimony taken in this case that if gas was present in this mine—in the "Dick Lee" entry—sufficient to have caused the explosion that occurred, it must have been present in dangerous quantities at the time the fire boss made his rounds in the morning prior to the explosion, and that he either failed to visit this entry, or made a wrong report, or the air may have been short circuited by reason of a door or brattice being left open, causing an accumulation of gas beyond that point.

Your Committee finds that the explosion at Thomas Mine No. 25, where twenty-five men were killed, was a gas explosion, the gas being ignited by open lamps carried by men who went into the mine to work. This

conclusion is borne out by the testimony of Mr. Lee Ott, Superintendent of this mine, who admitted that the fan had not been running for ten or twelve hours, nor had the mine been properly inspected on the morning of the explosion; that the explosion took place between 6 and 7 o'clock on Monday morning, when the men were supposed to go to work at 7 o'clock; and further, that there was no ventilation in the mine at the time the explosion took place and that a small gas feeder had been discovered in the mine on Saturday before. This explosion occurred on Monday morning. Your Committee is of opinion that the employees of the company operating this mine were guilty of gross negligence in permitting any of the miners to enter that mine until it was properly ventilated; and the miners themselves were equally as negligent in entering the mine if they could observe and did observe that the fan was not running, and that, consequently, there would be no ventilation in the mine.

Your Committee finds that the explosion at the Whipple Mine, in Fayette county, on the first day of May, 1907, at which sixteen men lost their lives, was a dust explosion, the initial point of which was at the working face of the first right off the Thurmond entry, and was caused by a blown-out shot or overcharge of dynamite in shooting off the solid. The men working at this point, according to the evidence, were experienced miners, and they were sent to work out a "fault," and were given the proper machinery for undercutting, but instead it seems they undertook to blow it out without undercutting. At this point no work had been done for several days, and it is possible that a sufficient amount of gas accumulated to be ignited from the overcharge shot, thereby causing the dust explosion. However, the fire-boss testifies that the mine was free from gas when he made his examination on the morning before the explosion occurred. This gas, however, may have accumulated by reason of some brattice door being left open, thereby short-circuiting the air and allowing the gas to accumulate at this point.

Your Committee is of the opinion that the explosion of the Monongah Mines Nos. 6 and 8, was a dust explosion, and it seems to be the consensus of opinion of the experts who made an examination of the mine that the initial point of explosion was in Mine No. 8, and many of the inspectors and experts believed that the cause was a blown-out shot. Yet Chief Paul, together with others, is of opinion that the runaway cars, numbering twenty-one, and wrecking at the bottom of the slope, was a great factor in causing the explosion. Inasmuch as the experts who spent weeks examining this mine are divided in opinion as to the initial cause of the explosion, your Committee feels that it must refrain from attempting to give you the initial cause of the explosion. But whether it was a blown-out shot, as is contended on one hand, or whether caused by the runaway cars, as contended on the other, either of these causes could have and should have been prevented by the company or the miners.

*Third.* "To investigate fully the bureau of mine inspection as to the conduct and working of the office."

On the 22nd day of February, 1907, the Legislature of West Virginia passed an act revising the existing mining laws of the State. This act

went into effect ninety days after its passage, being May 22nd, 1907. By this act all the existing mining laws were modified, and in many ways strengthened, providing for a re-organization of the mining department and giving the mining department more power and authority, and adding to the mining force new deputy inspectors, making twelve in all, corresponding with the number of districts into which the State was divided by the act. While your Committee is of the opinion that the mine department of the State is not as active and as effective as it should be under the law, yet it is aware that the department has been acting under a new law, which could hardly be expected to be as vigorously enforced as it would be after both the mine department and the operators became thoroughly acquainted therewith. Your Committee, however, is of the opinion that the department fails to impress itself as effectively as it should upon the operators of the State. It is further the opinion of the Committee that the mine department lacks proper organization, in that it does not respond as quickly and forcefully as it should to the demands of the act referred to, and to the existing condition of affairs in many parts of the State.

At the time of the explosion at Stuart on the 29th of January, the mine department of the State should have known if it had been alert to the duties and responsibilities resting upon it, that the Stuart mine was being operated in violation of law, in that it was working more men in the mine than was authorized by law at that time. First, because on June 30th, 1906, prior to the explosion, it was reported to the mine department that eighty-three men were employed in the mine at the time, and that that mine can produce five hundred tons per day; and, second, when inspection was made on the 21st of December following, a careful inspector could not have failed to see from the advancements in the different headings, the enlargement of the mines, and that more than twenty men had been at work. At this time, however, it was reported by the district inspector that more than twenty men were working, but not at one time, there being two shifts at work. Had the inspector been thorough, and conscious that it was his duty to see that the law was not violated, he certainly could not have failed to note that in this respect at that time the mine was operated in violation of the law; and in fact from the reports sent in to the department, it is the opinion of the Committee that former Deputy Mine Inspector Absalom did know that this mine was employing and working more men than was allowed by law in the mine.

Section 16 of the mining act passed by the last legislature, provides, *inter alia*, "And if any inspector shall discover any mine does not, in appliances for the safety of the persons employed therein, conform to the provisions of this act, or that by reason of any defect or practice in or at such mine that the lives or health of the persons employed therein are endangered, he shall immediately in writing notify such operator or agent thereof, stating in such notice the particulars in which he considers such mine defective or dangerous, and if he deem it necessary for the protection of the lives or health of the persons employed in such mine, he shall, after giving notice of one day to such operator or agent, in writing, notify the chief of the department of mines, who shall immediately



examine the mine reported to be unsafe, and if upon examination the mine reported to be unsafe is in fact found to be in an unsafe condition, the chief of the department of mines shall forthwith order the mine to be closed until it is placed in a safe and proper condition for mining operations."

This summary power placed in the hands of the chief mine inspector gives the department absolute control of the situation. Any practice or defect in the mine or the machinery or equipments thereof which is deemed to affect the health or lives of persons employed therein, is a sufficient warrant, upon notice to the chief, to close down the mine without any legal proceeding or process.

In the evidence of nearly all of the district mine inspectors there appear many complaints of operators who have not responded promptly to the demands of the law in putting their mines in condition of safety; and that, although notified by the inspectors, some of the companies at this time have not responded, and some of the mines are in an unsafe condition. This state of affairs should not exist, and is incompatible with an efficient, vigorous department. It was the duty of the district inspector when he found anything in any mine which was dangerous to the lives or health of the miners, at once to notify the company, and require that it immediately put the mine in a safe and healthful condition. This, it seems, was done in many instances, but stopped there. When the company did not respond—as was the case in many instances—it was the duty of the district inspector immediately to notify the chief. It then became the absolute duty of the chief at once to execute the law as laid down in section 16, above quoted. This vigorous action would have awakened in the operator a respect for the law and the department. Yet the Committee has not learned or been informed of a single instance where summary action has been taken, or an attempt to enforce the provision of law just above quoted.

In certain sections of the State steam locomotives are used contrary to law and in defiance of the order to remove the same, by the district mine inspector. This condition has existed since the law came in force on the 22nd of May, 1906, and it still exists. A vigorous department would not permit this condition to exist longer than was necessary for the chief to visit the scene.

The operators in many sections of the State have responded to the law, and are attempting to enforce the same.

It appears from the evidence adduced before your Committee that the practice of shooting off the solid, without the consent or direction of the mine department, which seems to be the cause and initiative of most of our explosions, is still practiced to a large extent throughout the State. It seems to the Committee that an inspector could not fail to observe this practice on the part of the miners, were the inspector to visit the working places on his tour of inspection, and vigorous action should be taken both by the operators and the mine department to stop this vicious practice. In the New River district, after the law came in force, your Committee found posted at the entries of a great many mines, rules and regulations conforming to the present mining law. Among other things, it was

stated that anyone found shooting off the solid would be summarily discharged and prosecuted. Since that time many miners have been prosecuted by the operators in that district, and some have been put in jail for violating this rule and regulation. If all the operators of the State would co-operate with the department and strictly enforce the law in relation to shooting off the solid, the dangers of explosions, to a large extent, would be minimized.

Your Committee calls attention to a further point of weakness in the mine department, viz.: That the reports of the district mine inspectors to the chief convey but little if any, information; but the reports to the chief inspector, from inspection, seem to be as full and complete as reports of a similar nature made by deputy inspectors to their chiefs in other states of the Union. Your Committee is of opinion that the reports of the district inspectors should be full and complete, giving in detail any condition of the mine, or any practice that would tend in any way to endanger the life and health of the miners, or the destruction of property. It seems to have been the practice of almost all district inspectors, as adduced by their evidence, to give their instructions as to any practice, or dangerous condition of the mine, or its equipment, orally to the operator, and to make no mention of the fact in the report when the same was sent to the chief. The chief, therefore, would not be in position to know the real condition of the mine examined, nor to know anything about the danger, if any, at that particular mine.

Your Committee, upon this point, would suggest that the district inspectors should be specific and point out particularly the danger, and, if it is in a mine, to point out the particular spot, not only to the company but also to the chief, so that both would know exactly the location of the trouble.

Your Committee is further of the opinion that the Chief Mine Inspector should visit oftener the various mines in the State, and make such inspections and take such tests as would enable him to instruct his deputies in that particular district, and that he should send written instructions, and even keep in touch with the actual work being done by the district inspectors. Your Committee recognizes, however, that the work of the mine department is a vast and important one, and unless it can compel the respect and co-operation of the operators, that it cannot be made strong enough to meet all requirements. And, in addition, the miners themselves, must be made to co-operate with the department because many of the practices are the result of carelessness or stubbornness upon the part of the miners. In the opinion of the Committee, however, a vigorous department will command this respect both from the operator and from the miners, wherein the operators fail upon their own volition.

Your Committee, however, is conscious of the fact that the mine department has been peculiarly and severely tried within the last year. First, was the explosion at the Stuart mine; second, the explosion at the Thomas mine; third, the explosion at the Whipple mine; fourth, the explosion at the Monongah mines; and while this legislature has been in session, there has been an explosion near the Hawk's Nest. These ex-

plosions, save one, totally wrecked the mines and virtually killed all the miners who were working in the mines at the time.

The duties of the office of the mine inspector, as well as the call of humanity, summoned the chief mine inspector with all his force to the miners, as soon as the explosions were known, for the purpose of rescuing the living, if any could be found, and recovering the dead. To this call the chief and all his department answered, and the work of rescue and of the recovery of the dead was undertaken by the chief of the mine department, who was strongly supported by his deputies, with vigor and perseverance, and this work was done while they were surrounded daily by the many dangers that are lurking in mines after a great explosion.

The work of rescue and of the exploration of the various mines that have exploded has taken many weeks—and in the aggregate about two months of the time of the mine department—and while at this work, the deputy inspectors were compelled to leave their regular work undone.

Your Committee is of the opinion that the work of the chief mine inspector in these perilous undertakings of the recovery of the dead and the exploration of the mines, was done by him with great hazard to himself, and with skill, and his reports of his investigations within these mines show such ability and knowledge as can only be acquired by long and careful study and observation.

As mentioned in this report, the chief mine inspector of the State of Ohio made a personal investigation of the explosion at Monongah during the time of the recovery of the dead, and inspectors from the State of Pennsylvania also made an investigation. The reports of the chief inspector of Ohio, as well as of the inspectors from Pennsylvania, and of our own chief inspector, are found in the records of this investigation, to which we respectfully call the attention of the legislature for the purpose of showing the respective abilities of the parties making the same.

The work of rescue and of exploring mines after an explosion like the one at Monongah, is one of great peril and requires judgment and skill. In this work your Committee finds that the chief of the mine department has not only shown zeal, but great ability. At the coroner's inquest that was held at Fairmont, the chief mine inspector conducted all the hearings upon the part of the state, and developed many valuable facts in relation to the explosion. Your Committee further desires to mention the fact that in its labors throughout the State, the chief of the mine department and Deputy Inspector Earl Henry have been of great service, and have afforded your Committee much valuable information, and secured for it many facts in relation to the matters to be investigated; and, in addition to this your Committee desires to mention the fact that in all matters pertaining to the investigation of the department of mines, the chief of that department has promptly and cheerfully furnished your Committee with any and all information asked of him by it.

It appears from the evidence adduced in this investigation that the mine department, in certain sections of the state, has not met with the co-operation of the operators that it should have met with; that many companies in the state have failed to respond to the law and obey the directions of the department, and in some instances prosecutions have

been begun, but on account of local conditions they have failed, and the decisions of the court have been adverse to the department. This particularly was the fact in the attempt of the department to remove from mines the steam locomotives that are used in some portions of the state.

While your Committee has heretofore said in its report that in its opinion the mine department has lacked vigor, yet your Committee is aware from its investigations that the department for the last year has been working under great difficulties, as named above, and the new law required so many changes—many of which, as appears from the evidence, meant an expenditure of several thousand dollars in money by the various companies—that in many instances it became a physical impossibility for the companies to make those changes in response to the directions of the department, without wholly shutting down their mines for a long period of time; and had the department vigorously and peremptorily enforced the law, as it might have done under the new law, it would have entailed a loss of many thousand dollars and worked a very great hardship upon many of the operators in the state.

Your Committee calls attention to one specific matter. Many of the mines in the district known as the Norfolk & Western, before the passage of the act by the last legislature and before it went into effect on the 22nd day of May, were operating their mines with steam locomotives. That law forbids the use of locomotives in mines, except under certain conditions. Many of those mines were very large. It compelled the companies to change the system from the steam system into an electrical system, which cost many thousands of dollars, and which required time.

Your Committee is further of the opinion that the mine department was placed in a very difficult and embarrassing position when under the new law it found so many great changes that would have to occur in many of the mines of the state in order to comply with the law; and had the department been harsh, suffering would have followed. And while there have been many disastrous explosions in the state, yet your Committee begs to report that nowhere has there been an explosion caused by the leniency of the department towards an operator in permitting him to make this change as he was able to do so.

Your Committee is of the opinion that the department of mines has shown great patience with the operators in order to give them an opportunity to make the changes covered by the new law, but that from now on, the law should be enforced with vigor, energy and persistence.

*Fourth.* "To ascertain and report what further legislation is necessary in order to prevent a recurrence of similar disasters, and what further legislation may be necessary to enable the mine inspector effectively to promulgate rules and regulations for the conduct of mining operations, and secure the enforcement of the law and compliance with such rules and regulations."

In answering this inquiry, your Committee has been given a very grave problem. In the first place, it is the opinion of your committee that there should be two general inspectors appointed by the Governor, one of whom should be a practical mining engineer who should have at least five years' experience in underground engineering, and the other of whom should

be an installing and operating electrician. The chief inspector should have the authority to make reasonable rules and regulations for particular mines in particular districts, and in case such rules were thought to be unreasonable by the operator, the operator should have the right to appeal to the two general inspectors and the chief, who should constitute a board of appeal, and the conclusion reached by this board should be the rules and regulations of that particular mine or district upon such hearing before the board.

The purpose of suggesting the appointment of the two general inspectors by the Governor, is to give absolute independence to the two general inspectors, so that in cases of appeal it could not be said that the district inspectors were under the domination of the chief inspector; but, instead, that they be given absolute independence to act according to their sense of right. In all other regards these general inspectors should be under the chief, and should be at liberty to go to any part of the State when so ordered by the chief. These general inspectors should be appointed and hold their office for a definite time, and be removed only for cause.

The importance of appointing these two general inspectors, and requiring one to be an electrician, is suggested by the fact that electricity is one of the serious elements to be considered in attempting to devise means to prevent explosions, as electricity is certainly a factor in causing explosions, and it has not appeared to your Committee that any of the deputy inspectors is familiar with the practical working of electricity. These inspectors would be of incalculable value to the department in being at liberty to visit any mine or mines in this state, making tests of air, taking samples of dust found in the mines, and, in fact, gathering data in order that the chief may promulgate rules and regulations, and more thoroughly instruct his district inspectors.

Your Committee is further of the opinion that the chief mine inspector should make public the conditions of the mines as they exist in the different parts of the State, as shown by the report of the inspectors. This could not help but bring about a wholesome result, as publicity would be a great incentive for the operator to endeavor to have a good report.

Your Committee is further of the opinion that no further legislation at this time is needed, or would accomplish any good results. The act that was passed at the last session of the legislature seems to the Committee to meet every requirement of the conditions known at the present time.

Your Committee, however, is of opinion that if it should be the pleasure of the legislature to continue your Committee, and give it an opportunity to make a full and exhaustive report to the next session of the legislature, as was originally intended, that at the present time it would recommend a law authorizing a chief clerk for the chief of the department of mines. Such clerk should be competent and skilled in mining and capable of taking care of the office in the absence of the chief, thereby giving the chief an opportunity to visit any section of the country that he may desire to visit and collect such information as in his opinion should be collected. Such clerk to be appointed by the chief. In view of the fact of the great expense of the mine department, and the investi

gations going on by the different states, and the National Government, and foreign governments, as to the causes of explosions and the means of preventing them, your Committee at this time recommends the latter as being more preferable than the appointment of two general inspectors.

As to the clause: "To secure the enforcement of the law in compliance with such rules and regulations," your Committee calls attention to its reference to the mine department, hereinbefore made, and without repeating what has been said, the Committee is of opinion that if the proper vigor were injected into the department, there would not be a great amount of difficulty in having the laws obeyed.

Your Committee respectfully again calls attention to the fact that the legislature has asked the Committee to solve the greatest problem of the century. This is said because not only the legislature of this State, but the world in general is trying to solve the problem. Efforts are now being made by the national government to create a bureau for the purpose of experimenting to determine the hidden causes of mine explosions such as Monongah explosion. This research has been begun in England and France and the European countries, and it is still an unsolved problem,—particularly that phase of it known as "dust explosions."

Before the coroner's jury which examined into the cause of the death of the divers persons who were killed at Monongah, it was demonstrated by a chemist that it was impossible to wet down the dust. The chemist in the presence of the jury and many others, took a quantity of dust such as is suspended in the air in our coal mines, and after he had placed the dust in a bowl of water and stirred it until it sank in the vessel, he poured off the water, which was clear, and then took the dust out of the bottom of the bowl, and placed it in the palm of his hand, and by blowing into it scattered the dust over the room, where it was lighted with the blaze of a match; thus showing that while water may to some extent minimize the danger of coal dust which accumulates in all mines, yet it is impossible to entirely overcome its danger by the use of water.

Your Committee respectfully submits that the method of preventing coal dust explosions is at the present time unknown.

It has been contended that the use of what is known as "flameless powder" would minimize the danger, and many companies are using it—notably the Fairmont Coal Company—and it has been tested in parts of Pennsylvania; yet in the use of this powder experience has shown that there lies a danger. In case the powder does not explode, (it must be exploded by a peculiar cap, made for the purpose), it burns in the hole, thereby emitting a gas that is explosive, and also emits a smoke that is not only offensive but injurious to the health of the miners. And, in addition, experiment has shown that it is an explosive of greater power than the ordinary black powder, and has a tendency to splinter and pulverize coal, as dynamite does; and only recently the executive board of District No. 5 of the United Mine Workers of America, assembled in the city of Pittsburgh, decided that the use of masurite and nihilite powders (being the safety powders) were injurious to the men, and that it lessened the earning capacity of the men because it splintered the coal and broke it so fine that a large part passed through the screen, thereby lessening the

earning capacity of the miners; and the board sustained the miners in refusing to use the same. So it appears that the use of this powder will not solve the problem.

Your Committee respectfully submits that the above is only a preliminary report, and is not such a report as the Committee would like to make, nor as the Committee feels that the importance of the subject demands. When it is contemplated that the Committee has taken more than a thousand pages of testimony, and was present at the taking of about seven hundred pages of testimony at the coroner's inquest at Fairmont, and secured a copy of that testimony as a part of its record, making about seventeen hundred pages of testimony, as well as having secured numerous other papers and documents, it would hardly be expected that the Committee in this short time could digest and analyze the matter before it in order to make such a report as the Committee feels it should make.

The future of the State of West Virginia is largely dependent upon the coal mining industry. We are now second in tonnage and in a few years will be the first in the Union. There are in operation in this State seven hundred mines and the tonnage for the year 1907 was 44,845,515 tons. No effort should be spared by the Legislature of West Virginia to better the condition of our mines and to encourage the further development of the coal industry of this State, and to secure the safety of the miners engaged therein.

Your Committee, therefore, submits this report, out of respect for the Governor, who asked that a preliminary report be made, and this is submitted only as a preliminary report. But in the event that it is the desire of the Legislature to dispense with the Committee and accept this as a report of its labors, your Committee respectfully asks that all the evidence, papers and material collected by it be filed and printed as a part of this report.

Your Committee herewith returns a bill in conformity with its last recommendation.

Respectfully submitted,

THOMAS GARTLAN, Chairman.

R. F. KIDD,

*On the part of the Senate.*

J. H. STRICKLING,

M. K. DUTY,

A. J. MITCHELL,

*On the part of the House.*

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## HEARINGS AT CHARLESTON.

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**MAY, 1908.**

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The Committee met pursuant to the call of the Chairman, on the 4th day of May, 1908, at the Hotel Ruffner in the city of Charleston.

Present: Messrs. Gartlan, (Chairman), Kidd and the Secretary.

Absent: Messrs. Strickling, Duty and Mitchell.

There not being a quorum, and information having been received that some of the members would arrive tomorrow evening, on motion the committee adjourned to meet at 10 o'clock Wednesday morning, May 6th, in the Finance Committee room of the Senate.

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CHARLESTON, W. VA., May 6th, 1908.

Met pursuant to adjournment. Present: Messrs Gartlan, (Chairman), Kidd, Mitchell and the Secretary.

Absent: Messrs. Strickling and Duty.

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Chief Mine Inspector J. W. PAUL was recalled to the witness stand and, having heretofore been duly sworn, testified as follows:

### Testimony of J. W. Paul.—Recalled.

Examination by Senator Kidd:

Q. I will ask you if, since the taking of your deposition by this committee in January last, you have had any trouble with the coal operators of the State, or any part thereof, in reference to carrying out the instructions of your department, and, if so, kindly detail any difficulties that you have encountered.

A. At the time your committee convened last January, we had just concluded the hearing of a case against the Turkey Gap Coal & Coke Company in McDowell county with reference to the use of steam locomotives, and the inspector failed in that instance to get any relief, the justice in the case finding against the mine inspector. Immediately upon the return of the different inspectors to their respective districts, I issued an order changing the assignments of three of the inspectors and putting a new man into the district in which the Turkey Gap mine was located and during the following month this inspector was engaged on a number of cases in his former district in Fayette county, including some prosecutions and trials. In the course of his work in his new district he visited the Turkey Gap mine along about the 18th of March and gave them notice that if after the 20th of March he found them using locomotives in the mine he would take action to have the mine closed. He again visited the mine and found that the locomotive was in use and he served notice on the company of his intention to appeal to the chief of the department to make an examination of the mine with the view of closing it. They suspended operations at the mine and sought an interview with me at Charleston, which was had on the 21st, which I believe was Saturday. Several attorneys and several coal operators here at Charleston conferred with me with the view of having the department grant them permission to operate their locomotives until the matter could be tested in the courts. Not having authority to grant a request of this kind, I refused, and instructed Mr. Boyd, the inspector,



to again visit the mine on Monday, the 23rd, and if he found they were using the locomotive to give me notice. Upon visiting the mine he found them using the locomotive and he notified me and I at once went to the mine and joined Mr. Boyd on the 26th of March, and made a careful inspection of the mine, and upon completing the inspection I issued an order closing the mine until such a time as they would choose to operate the mine without the use of a steam locomotive. The company, through their attorney, notified me that within the three days next ensuing they would petition the judge of the circuit court of the county in which their mine was located to issue an order directing that the mine be reopened. On the 30th of the month the case was heard before Judge Herndon, at Welch, McDowell county. On the inspection that I made on the 26th of the month I had with me District Inspectors Boyd and D. R. Phillips. On the day of the hearing the company introduced about a score of witnesses, including the president of the company, the superintendent, the mine foreman and a number of employees, some of whom were men who worked on the locomotive and some of them track-layers and miners. They also introduced the mine foreman from the Pocahontas mine in Virginia and a mining engineer. All of these witnesses testified that they had experienced no inconvenience by reason of the gas and smoke emitted from locomotives in the mines, and that they knew of no person having suffered any inconvenience in this mine by reason of the gas or smoke from the locomotives. The physician for the operating company also testified in the case that he had had no cases growing out of the use of steam locomotives in mines. The mine department introduced Inspectors Boyd and Phillips and myself and we testified relative to what we considered to be the danger of steam locomotives in mines. After the completion of the testimony the case was argued by the attorneys for the coal company, and they made a motion that the court should hold the entire mine law to be unconstitutional. In the event of his not entertaining that motion, they made a motion that he hold section 16 of the mine law to be unconstitutional as well as section 24. It was under section 16 that the mine department closed the mine for the reason that in its previous case they had failed to eliminate the locomotives by the use of section 24. A large number of citations were made by the attorneys with reference to their motion to hold section 16 of the law unconstitutional, they claiming that the chief of the mine department had exercised authority not given him by the constitution as it deprived the operators of the mine of the right of their property without due process of law. The mine department was defended in this suit by Judge D. E. Matthews, representing Attorney General May, who injected many oppositions to the arguments made by the plaintiff's attorneys. Upon the completion of the argument the court issued the following order:

TURKEY GAP COAL & COKE COMPANY, a corporation,

against

J. W. PAUL, Chief of the Department of Mines, and JAMES G. BOYD, District Mine Inspector.

On application to re-open Turkey Gap Mines before Hon. I. C. Herndon, Judge of the Circuit Court of McDowell County, in chambers on this March 30, 1907.

This day came the applicant and petitioner, Turkey Gap Coal and Coke Company, a corporation, and presented to the Judge of the Circuit Court of McDowell county, in vacation, on this 30th day of March, 1908, its petition in writing, and with exhibits thereto attached, and accompanied by notice in writing showing that the said J. W. Paul and J. G. Boyd have had due notice thereof, and the said Paul and Boyd appeared in person and by counsel, D. E. Matthews, Assistant Attorney General of this State, and acting for the said Attorney General, and the said defendants by their counsel moved the court to permit them to file their answer to the said petition to the filing of which the applicant objected, but the court overruled said objection and allowed the said answer to be filed; and thereupon the Judge having heard the evidence adduced by both applicant and by the defendants, and after hearing the arguments of counsel upon the question of the unconstitutionality and invalidity of Chapter 78 of the Acts of 1907, known as the mining laws of this State, is of opinion and doth decide that the 24th Section of said Chapter 78 is unconstitutional, void and of no effect whatever, and upon the facts

adduced finds the said Turkey Gap mine is in a reasonably safe condition; therefore the prayer of the petition of the applicant and petitioner is hereby granted and said mine ordered to be re-opened.

To which ruling and finding of the court the defendants, J. W. Paul and J. G. Boyd, by their counsel at the time excepted and asked leave and within 30 days file their bill of exceptions.

To the clerk of McDowell county circuit court.

I. C. HERNDON.

Witness, (continuing). As noted in this order the Assistant Attorney General took exceptions to the ruling of the court for the purpose of filing a bill of exceptions with the view of taking an appeal in the case. I conferred with the Attorney General, in the presence of Judge Matthews, after returning to Charleston, with reference to the case. They took it under advisement and the Attorney General came to the conclusion that we would accomplish nothing by taking the matter to the supreme court, for the reason as he intimated, that the court would only act upon the order as given by the court on the petition of the company to re-open the mine; that that was the case in point and that he would not be able to get a hearing on the constitutionality of section 24 of the law. I was not aware of their decision at the time, and in the meantime General May was injured and died from his injuries and Judge Matthews was detained with him, and I was out in the field, and had no opportunity to learn anything in reference to the matter; but I had previously conferred with the Governor—upon my return from Welch—and he, I understood, made an engagement with Judge Matthews to talk the matter over. Not having access to the Attorney General or his assistant (and my recollection is the Governor was absent at that time when I was present in Charleston). I took it upon myself to write the clerk of the circuit court of McDowell county and I asked him to forward me the necessary papers for the purpose of taking an appeal. I also had one of my district inspectors go to Welch with the view of seeing that the papers were gotten out promptly and mailed here in time to have the case tried. My inspector wired me that the clerk of the court could not furnish the papers unless it was upon the request of my attorney. I did not see the Assistant Attorney General and the matter was not brought to his attention until the 29th when the telegram was submitted to him, and he then expressed some surprise that I had taken the action I had, for the reason that he was under the impression that Attorney General May had notified me that we hadn't a case that we could take before the supreme court. I called on Judge Matthews on the 30th and went over the matter again with him, and he confirmed the fact that he had talked the matter over with the Governor and explained to him the futility of appealing the case since he felt that the court would affirm the opinion of the lower court upon the evidence adduced in the case, and that we would not be able to get the supreme court to take any action on that part of the court's decision in which he held section 24 of the mine law unconstitutional. So that is the sum and substance of the Turkey Gap locomotive case.

Q. Did the company open the mine after the order was issued by Judge Herndon?

A. My opinion is that they did.

By Chairman Gartlan: Q. They are running now, are they, Mr. Paul?

A. Yes, sir.

By Senator Kidd: Q. In what respect is the use of a steam locomotive in a mine dangerous?

A. It is dangerous principally for the reason of the gasses that are given off by the combustion of the fuel in the locomotive.

Q. About how many mines in the State are using steam locomotives?

A. In the neighborhood of a dozen, or it may be more. They are all confined to this circuit Judge's district.

By Chairman Gartlan: Q. Mr. Paul, you state they are dangerous on account of the gasses given off. Is that theoretical or practical? Have you any proof that the health of the men has been injured or that they have been poisoned by the gasses?

A. Well, I have read of and been told by people who knew, that men had lost their lives by inhaling gasses from locomotives in mines.

Q. But you haven't any evidence to that effect to support the contention? That is, you haven't any means of knowing that?

A. Inspector Boyd claims that while he was mine foreman at the Pocahontas mine he felt bad effects from inhaling gasses from the locomotives used in that mine. I have not seen any people myself who were overcome, but my inspectors have often told me of men that they have talked to who said that they had been overcome in mines. I remember one case, in particular, on the Norfolk & Western Railroad, where the general manager of a mine who had installed an electric haulage machine claimed that he had oftentimes been hardly able to get out of the mine by reason of the inhaling of fumes and gasses.

Q. Well, now, what disposition is there on the part of the operators, outside the Turkey Gap Coal Company, to comply with the law? Are any of them making a move to comply with it in that respect?

A. During the past several months what might be known as mines under the management of the Tierneys have been engaged in the building of power houses with the view of putting in electric motors to supplant their steam locomotives; but I think it was yesterday that I received a letter from Inspector Boyd in which he said that at one mine—since this ruling of the circuit court—they had discontinued work on their power house and were making arrangements to extend their locomotive haul farther into the mine.

I closed another mine in that field—I think it was on the 27th day of March—at the instance of D. R. Phillips. That was in Mercer county. I visited the Buckeye mine, and, with Mr. Phillips and Mr. Boyd who accompanied me, made an inspection of the mine, and for the reason of the using of a steam locomotive in that mine I closed it. That case was set for hearing on the 31st of March, the day following the hearing of the Turkey Gap case. It was merely a duplicate of the Turkey Gap case; and after conferring with Judge Matthews with reference to the matter we concluded we would not push the case for the reason that we felt satisfied that we would get the same result as at Turkey Gap, and the Judge seemed to think that the best move to make would be to dismiss the case against them. However, the judge of the circuit court issued an order re-opening the mine on the following day.

At the instance of inspector Grady, on the 3rd of April I visited the Walnut Hill mine at Naugatuck, Mingo county. They had been attempting to ventilate their mine by means of a furnace, but the natural ventilation of the mine was stronger than the furnace, at times, and the smoke went back into the mine instead of going out and assisting the ventilation. When I arrived at the mine they had torn away their furnace with the view of making improvements on the other side of the mountain where they had another opening and were attempting to build a more modern furnace. I found practically no ventilation whatever in the mine and what was there was unreliable, for the reason that part of the time it was traveling in one direction and in the next ten minutes it would be traveling in the opposite direction, and by reason of the absence of ventilation in the mine I ordered that mine closed until such time as they would properly ventilate the mine. They made no appeal in the case but proceeded to remedy the condition of the mine.

Q. Did I understand you to say that they were putting in a ventilating system?

A. Yes, sir; they remedied the matter by building a larger and more up-to-date ventilating furnace in another section. The wind affected the ventilation where the former furnace was located. Now, those are the only mines that I have been obliged to go personally and close at the request of the inspectors. A number of my inspectors have taken upon themselves the closing of mines until certain conditions are remedied, and the operators have acquiesced in their action. That has been especially true up in the New River district where the inspector found sufficient ventilation was not had in the mine and under authority of the law he had taken out men where they hadn't sufficient ventilation, and in a number of cases he took so many out that they hadn't a sufficient number to operate the mine, and they took out the rest until such time as they could make the necessary repairs. I have a number of matters pending with the department at the present time with reference to several mines, and I have arranged dates for conferences

with the managers of mines with the view of going over conditions that exist and having them make certain improvements.

There is one feature of our mine law that there is a wide difference of opinion concerning, and that is, as to what constitutes a dangerous quantity of gas in a mine, or when a mine is considered to generate gas in dangerous quantities. Recognizing that this was a point regarding which the inspectors would have to make a decision and take a stand upon when the law went into effect the first of last July, I had a conference with all the inspectors and we determined upon that particular feature of the law and discussed it with the view of having a similarity of action taken by each inspector, and the decision was unanimous among the inspectors and myself that where we found that a mine was required or compelled to use brattice cloth beyond the last break through for the purpose of driving out the explosive gas generated, that that constituted the generation of gas in a quantity sufficiently dangerous as to require the use of safety lamps.

Q. Has your department recently required the use of safety lamps in any of the mines of the State, and if so, where?

A. I believe it was sometime in March that Inspector Boyd requested the use of safety lamps at the King mine, in McDowell county, and the operators at the mine took exceptions to the requirement being made by the inspector, and telegraphed or telephoned me and I—with two or three other inspectors—went to the mine and made an examination of it, and I wrote the manager of the mine and he immediately came to Charleston to talk over the matter with me, and after explaining to him the condition of his mine, he agreed to install safety lamps as soon as he could get them. He said he would send a wire that day or the next day for the lamps, and in the meantime—until he could get the lamps—he would exercise all precautions possible, such as the use of shot-firers for shooting the coal down, until he would be able to get the lamps; also to use safety powders. I had a wire from the manager yesterday to the effect that the material was on the road to the mine. Inspector Boyd also asked the New River and Pocahontas Consolidated Coal Company, at Berwind, to install safety lamps and they took exceptions to his judgment and I visited the mines myself and also had seven other inspectors to visit it, and had each of them write me a report in reference to it. My personal judgment was that safety lamps should be used in the advance working of the mine and not on what we call their first left entries. Two of my inspectors did not seem to think that safety lamps were a necessity in the mine. Four of the others thought that safety lamps were a necessity, while one of them was under the impression that safety lamps should be used, but he thought it inconsistent to require the use of safety lamps in the mine for the reason that they were using electric machines for hauling in the mine. I had a conference with the general superintendent of the mine—I believe it was last Friday—and went over the matter with him in detail, and wrote him in connection with the matter confirming our conference and asking him to advise me of his acceptance or rejection of our requirements. During my absence on Saturday, or a few days later, a representative of the company, who was in my office during the conference, told my clerk that they were going to adopt the requirements as outlined by me. Again, Mr. Boyd asked the Jed Coal Company, of McDowell county, to adopt the use of safety lamps as well as to inaugurate certain other changes in the mine. They agreed heartily to comply with this recommendation with the exception of the use of safety lamps as they wished to be given a little time to state whether they would use them or not. This forenoon I had a conference with Mr. Leckie, the manager of that mine. He agreed to telegraph for the lamps at once and to furnish me a copy of his telegram as well as the telegram or letter of acceptance on the part of the people who furnish them, as evidence of his sincerity in installing the lamps. While I am on this particular subject of safety lamps, I will say that there are a number of other mines in the State where safety lamps have been installed upon the request of the district inspectors.

By Chairman Gartlan: Q. What amount of gas did the inspectors and you decide upon to be dangerous?

A. We did not express it in cubic feet, or in measurable quantities, other than the fact that if gas is being generated at the face of a working place to such an

extent that in order to make it safe for men working in such a place it is necessary to use brattice cloth to take the air up into the working place.

Q. Well, now, is that general all over the State? Are the inspectors enforcing that in mines all over the State?

A. So far as I know that is being done. That is the position they are taking.

Q. I mean the inspectors all agree on that?

A. Yes, sir; I prefaced my remark by saying that the inspectors had all agreed upon that being the method to adopt when gas was being generated in dangerous quantity.

Q. The reason I asked the question was that you spoke of them—in the mines visited—not being satisfied. What I meant was, would it be left to the discretion of the inspector or would they really follow their own opinion.

A. Well, there are some places where companies may use brattice cloth as a precaution, for fear they may run into something. Of course there may be a number of cases that I cannot now recall; but we have a case pending in the criminal court of Fayette county as the result of a visit made to the mine by inspector Boyd when he was in that field, by reason of the management of the mine working men in places that were beyond the ventilating current of the mine, and he took the men out of those places and upon returning he found that they had put the men back in there and had advanced them probably fifty feet farther without making any arrangements for ventilation. That case was brought before a justice of the peace in Fayette county and they waived a hearing. He placed them under bond for appearance before the grand jury and at the last term of the criminal court Mr. Boyd appeared before the grand jury and secured three indictments against them—one each against the superintendent, mine foreman and fire boss. These cases have not come to trial yet.

By Senator Kidd: Q. Are the operators generally showing a disposition to live up to the law and your requirements?

A. There is a general disposition and inclination, it appears to me, for operators to put their mines in condition. There are some mines where the operator of the mine frequently thinks that we are being too severe in demanding certain things of them. We have one or two mines in Fayette county at the present time that we haven't concluded with as yet for the reason that the mines are old and the condition of the mines had not been kept up to what it should have been. When this new law went into affect the requirements were so much more exacting than they formerly had been that it would be a matter of considerable expense to an operator to immediately put the mine in condition to comply with the law. Now, in charge of some of these mines, there are oftentimes men who do not fully appreciate and realize when their mine is in condition to meet the requirements of the law. We also have men who think that when the air is clear in a mine that that answers the purposes of ventilation; whereas, we take the position that the current must be moving. We have cases in point at the present time, and as I related a while ago I arranged for a conference with the general manager of the company with the view of having him agree to make the necessary changes in the mine in order that it might meet the requirements of the law as we look at it. While we feel that there isn't any gas in a mine or that there isn't any probability of any explosion occurring in a mine, from our standpoint, still we think that the conditions should be improved. There is one mine in particular that has natural ventilation. At times the ventilation is not up to the standard; whereas, at other times I understand the ventilation is very good. The day I visited the mine there was about 34,000 cubic feet of air going into the mine, but I am told that at times the ventilation is not so strong as that.

By Chairman Gartlan: Q. Mr. Paul, since we met in January what have the inspectors done in regard to their reports? Have they enlarged upon them in any respect?

A. Well, I have given the inspectors quite an elaborate lot of instructions and have given them additional forms and their reports are much more elaborate than they formerly were; although they have always been given instructions that where the form they are furnished to give detailed information on don't cover the conditions at the mine, they should utilize any additional paper under the head of "Remarks," or write letters covering those features.

Q. Well, do you find them doing that in order to keep you informed as to conditions?

A. Yes, sir.

Q. They are following that out?

A. Yes, sir; they are furnishing more details as to the conditions in general and have a large number of prosecutions of mine foremen, superintendents and of miners themselves. We have one inspector who in the last few days has sent in a list of thirty-six prosecutions. There are some objections made on the part of some of the companies for the reason that there are some things that they could not get. For instance: record books for the measurement of air and anemometers for measuring the air. I understand that West Virginia practically exhausted the supply of anemometers in the United State when this law of ours went into effect; but we think now they have had sufficient time to get them and where we find they haven't them we prosecute them.

By Senator Kidd: Q. Have the mines of the State generally opened up at full time now?

A. No; the mines have been running very irregularly since the first of last November. There are a number of mines that have practically suspended operations and the running in some sections of the State is so irregular that it is difficult sometimes for the inspectors to find a mine in operation when they go to inspect it.

Q. Is there an improvement in it now—in the operations? I mean are more of them opening up?

A. There are very few new developments at the present time.

Q. I mean is there any improvement in the conditions at the present time of mines heretofore in operation?

A. I think there is a slight improvement in the way of tonnage. I would say that there is a slight improvement at the present time with prospects of considerable more improvement by the middle of this month.

Q. How do you find the conditions in regard to solid shooting compared, say, to what they were a year ago?

A. Well, they are very much improved. The manufacturers of these safety explosives have had their field agents out demonstrating the use of their explosives. We have four or five of these explosives now on the market that are giving very good satisfaction and a number of the mines are using them where they do solid shooting. At a number of the mines where they do solid shooting they are using shot-firers and using clay tamping instead of coal dust. We had considerable opposition as to the solid shooting, not only from the operators but also from the miners; but whereas a few months ago—shortly after this law of ours became effective—it was the universal practice in some sections of the State to shoot on the solid, it is practically abandoned now. Of course occasionally—where they have practically abandoned solid shooting—you will run on some man who shoots on the solid. I have given instructions to all of my inspectors that where they have not adopted the rules on solid shooting as laid down by the mine department, and where the company has forbidden solid shooting, which would necessarily necessitate the undercutting of the coal—that where they find a violation of that rule, or any other rule adopted by the company, that they bring a prosecution against the offending person. We had a meeting at Bluefield last September with the operators in that field with reference to becoming more familiar with the mining conditions, and there was a discussion of the features of the mine law and the position they took in regard to it so far as their interpretation of it was concerned, and that was one point to which they strenuously objected; but since then labor has become much more abundant and it is easier to obtain discipline in the mines and they have been able to cut out practically all the solid shooting.

Q. Well, then, the operators are showing a disposition to help out in that matter?

A. Yes, sir; they are.

By Senator Kidd: Q. Have you any suggestions to make about improvements, not heretofore alluded to in the proof, or changes in the law?

A. I do not think of any at present.

Q. Is there anything else that you desire to give us the benefit of?

A. I have felt that the work of the mine inspectors and of the mine department

especially could be much facilitated if the department could have access to some good lawyer—a man who could be taken to any part of the State with the view of conducting prosecutions for the mine department.

By Chairman Gartlan: Q. Then you feel that you would like to have authority granted you to employ special counsel?

A. Yes, sir.

Q. Could you not get that from the Board of Public Works until the legislature could change the law in that respect?

A. I have talked the matter over with the Governor and he has conditionally agreed to furnish me a lawyer and pay it out of his funds. As our law is now, the Attorney General is not required by law to come in and render any assistance until after the chief of the department has closed a mine; then if they appeal or petition for a mine to be re-opened, he comes in, and he has to get there within three days, and he hasn't time to familiarize himself with all the preliminaries leading up to the closing of the mine; and in the meantime the lawyers for the coal companies have had advantage of that, and they have had an opportunity to consult their libraries and prepare their case, and the Attorney General is very much handicapped on an occasion of that kind.

[Mr. Paul here filed with the committee a sample copy of blank reports now used in his office and also instructions given to his district inspectors since the last meeting of the committee.]\*

An adjournment was then had until to-morrow morning, May 7th, 1908. at 10 o'clock.

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MAY 7TH, 1908.

The Committee met pursuant to adjournment and there were present Messrs Gartlan, (Chairman), Kidd and Mitchell, and the Secretary. The hearings were resumed.

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BENJAMIN DAVIS, a witness of lawful age being first duly sworn testified as follows:

### Testimony of Benjamin Davis.

Examination by Mr. Kidd

Q. Mr. Davis where do you live and what position do you hold?

A. I live at Montgomery, West Virginia, in Fayette county, and I am president of the United Mine Workers of America, District 17.

Q. What territory is included in District 17?

A. Practically all of West Virginia and East Virginia and a portion of Kentucky.

Q. How long have you held that position?

A. About ten months. I might say that I have been a representative of the West Virginia miners for seven years.

Q. Do your duties as such president require you to travel over the territory included in your district?

A. Yes, sir.

Q. About how many members have you in District No. 17?

A. We have a paid up membership, approximately speaking, of seven thousand. That number is not shown at the present time but it is due to the fact of bad work and so many exonerations.

Q. About how many of that number are in West Virginia?

A. Well, all with the exception of about seventy-five.

Q. To what part of West Virginia is your organization mostly confined at present?

A. To the Kanawha Valley.

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\*See Appendix.

Q. Have you any union miners in what is known as the Fairmont field?

A. We have in the thin vein section of the Fairmont field, at the Tunnelton mines that lie adjacent.

Q. In the Norfolk & Western field have you any organization?

A. Yes, sir; we have one local on the Norfolk & Western.

Q. Mr. Davis, I will ask you the condition of the mining interests of West Virginia at the present time?

Witness: I do not understand exactly what you mean?

Senator Kidd: I mean the whole thing—whether it is progressive, or is there a good deal of idleness among the miners and operators.

A. I have observed during the last several years the development of the mining industry in this State and according to our department it shows that the developments are going on. My observation of the general situation of the mining industry in the State at the present time, is, that we are not having as good work now as we have had in the past three or four years. So far as wages in the Kanawha Valley are concerned, and the conditions of employment and hours of labor, the men here have an advantage over the men in any other section of the State. Of course I do not deem it necessary to go into details and point out those things to the committee, because I presume you are fully aware of them. In certain sections of the State there have been some reductions made recently in the price of coal mining. I have been able in this section to maintain the present mining rate and as a whole—taking the mining situation throughout the country as I have studied it—I believe West Virginia is in far better condition than any other State where coal is mined at this time.

Q. I will ask you to give the committee any suggestions that you may feel free to make about improving the mining conditions of the State, or any addition to the law or regulations to be promulgated by those in authority.

A. While I am not as familiar with this matter as some who have taken an active part in connection with securing mining legislation, I am of the opinion that if the present mining laws were strictly complied with, that it would have a tendency to make the general situation in the coal industry in West Virginia lots better. I am not in position to say or point out the number of violations of our present mining law, but I am of the opinion that if our present mining laws were strictly complied with in the entire State—that if the department and the coal operators as well as their men were made to recognize that the laws made by the people of this State mean just what they say, with proper penalties—that it would do more to reduce these accidents and these explosions that have taken place than anything else that ever happened. I feel this way about this matter: that if after a proper test of the laws we now have they should prove inadequate, it is time then for us to point out wherein they are not sufficient. In my own section here the owners of various mines have recently been notified that their mines were being operated in violation of the law. I am not one of those who believe that we should close these mines down right on the spot, but I think the owners should be made to understand that the laws that we now have must be complied with and that they should put in these reforms just as quick as they can—not to stop the mines but to put these reforms into effect and see that the laws are properly complied with. I venture the prediction that very few mines in West Virginia are now complying with the mine laws. I know—and I presume what you want is a general statement—

Senator Kidd: Yes; any information you have we want you to feel free to give it, and you can make as full a statement as you wish to make.

Witness, (continuing): There have been a number of complaints that have come to me and to our people because of men who were employed as agents of the coal companies. When our men dared to assert their rights they were immediately told that they would have to get off the place. These people who have been employed in a good many instances have made assaults on our people because of our desire to reach the men and try to get them organized. I think with proper penalties attached to our present laws, if they are enforced, that these explosions—these accidents we have been having in West Virginia—will be minimized to a certain extent; but I believe first of all that the laws we now have should be enforced; that we should make every man recognize that he must com-



ply with them and if he does not do it he must suffer the result of his disobedience.

Q. I will ask you in what way or ways the operators are disobeying the laws, as you have observed?

A. Well, by not having the proper ventilation; entries are not being driven according to law; the break throughs have not been properly bratticed; and the over workings in places have not been taken care of as they should be. But I want to say of recent date there has been an attempt made—so far as I have known—to regulate these conditions and comply with the law. I know a change has been made in our section, of recent date.

Q. Is the mine department after these operators to have them make these changes?

A. They are, as far as I know.

Q. I will ask you, Mr. Davis, if in your opinion the lives of the miners are better safeguarded by having an organization such as the one to which you belong?

A. Yes, sir.

Q. Is the mining more efficient and the results better in organized territory than in unorganized territory?

A. Yes, sir.

Q. Where you have an organization and have inexperienced men to come into the mines, do those in the organization look after and advise with them about how to conduct their operations?

A. Yes, sir.

Q. I will ask you further, Mr. Davis, if the operators of the State as a rule are opposing the organization of the miners into unions?

A. My opinion of it is that they are, with the exception of this section of West Virginia.

Q. Then you are not encountering any opposition in this particular section, are you, at present?

A. No, sir.

Q. In what way is that opposition manifested?

A. The opposition as manifested is by people who are under employ in the capacity of guards, or detectives, who sometimes go so far as to assault our people who in some instances have been compelled to flee to save themselves. Take my own case, for instance: I was at Grafton. I made my headquarters there and had a room right opposite the hotel, and across the street from us there were about fifteen or twenty guards who stayed there, and if one of us attempted to go to the postoffice there would be two or three of them after us. I went to Clarksburg and I had a coupon that I was going to take to the station to get the cash on—the ten cents to which I was entitled—and on my way back I met a man whose name I afterwards found out was Shuttlesworth. He ran up to me and started to abuse me. I told him he was mistaken but he called me all manner of names, as well as my colleagues from Mitchell down, and he said, "Any man who would be in the employ you are is dirty enough to do anything." Of course I did not care about this and everything he said I put up with. In the meantime three or four big fellows came around me and I stepped into a barber shop, a fellow by the name of Flaherty being with me. We came down from his house to catch the train, and we came down to the end of the bridge and sat there awhile and as quick as we got up to take the train they followed behind us and used all kinds of language and even followed us right on the train. We could not leave the hotel office where I was located in Grafton without from two to four of them being right after us. Many of our organizers have been mistreated by them.

Q. In whose employ were these guards that you encountered at Clarksburg and Grafton?

A. Well, I am not in position to say as to who had them employed—whether it was through an agency or whether they were employed direct by the coal people.

By Chairman Gartlan: Q. When was that, Mr. Davis?

A. About two years ago.

By Senator Kidd: Q. Did these guards know the position you held at the time or what your business was in that section?

A. Yes, sir.

Q. They knew who you were?

A. Yes, sir.

Q. Well, now, have you or any of your people met like treatment in any other section of the State?

A. Yes, sir; we have had quite a number of our people beaten up on the Norfolk & Western Railroad, as well as in the New River section and on Cabin Creek. Two men by the name of Hartgrove and Boyle who were in our employ were beaten up, and I might say that Mr. Nugent also was assaulted over on the Norfolk & Western.

Q. Are your people permitted to go in a peaceable way into the different mining sections of the State for the purpose of organizing the miners into unions?

A. No.

Q. Are men assaulted simply for the reason that they are in these mining sections for the purpose of organizing, or only when they are there to persuade the men to strike?

A. Well, I think both. Evidently they construe it to mean that whenever they see us around it means a strike, but they have a wrong idea of the way we conduct our business.

By Chairman Gartlan: Q. Have you had any troubles recently in that regard, Mr. Davis?

A. No, we have not.

By Senator Kidd: Q. Are conditions becoming better in the State along that line?

A. The conditions apparently are better, but we haven't made a campaign of organization like we did in the past.

Q. You haven't, then, been pushing the organization of late? You have had no strikes for sometime in this State, have you?—no general strikes?

A. We have had no general strikes.

Q. And I believe you say the differences between the operators and men along this valley have recently been settled in a peaceable way?

A. I will say to the committee that for two years we have had no trouble with the operators in the Kanawha Valley with the exception of the small portion of it in Cabin Creek, and that was the only trouble since our first agreement in 1902. The contract we now have assures us of no misunderstanding until the first of April, 1910.

Q. Well, organized labor does not in any way interfere with the operator, does it, in the operation of his mines, further than to see that the miners get justice?

A. No, sir; as I look at it it is certainly a benefit to him.

Q. Then you think that in no way would it be detrimental to the interest of the operator to have his men organized and in unions?

A. No, sir.

Q. In your opinion, now, if one of your men should go into the Fairmont region, or into the Norfolk & Western region, and make known his identity, would he be interfered with by those guards about whom you spoke?

A. Yes, sir; it is my opinion he would. Whether they would assault him or not I do not know. They would, however, follow him around, and men who were caught consulting with our officials would immediately be discharged, and if that would not stop it they would resort to some other method.

Q. Then the miners are not permitted to confer with one of these men you send into any of these regions, as I understand you?

A. That is true.

Q. I will ask you this question: In the mining regions generally of the State are the miners intimidated or are they at liberty freely to discuss their grievances?

A. They are in this section; but outside of this section I do not believe they are at liberty to discuss questions affecting their interests, and especially wages and conditions.

Q. Then they must yield to the conditions that they do not regard as right, through fear of being discharged.

A. Yes, sir. We have in our office a list of names of people from various fields, that have come in during the last six or seven years, who have been discharged because of their action in connection with our organization.

Q. Do these guards of whom you speak make known who they are and by whom they are employed?

A. No; they generally know the organization we belong to but don't make themselves known. If they know a man is an organizer, or a representative of our organization, you can tell from their actions at first glance that they are connected with an association of detectives.

Q. Then if these detectives mistrust a man as being connected with a labor organization in one of these regions, he is watched pretty closely, is he not?

A. Yes, sir.

Q. And he is not always treated very courteously?

A. No, sir.

By Chairman Gartlan: Q. In other words he is eyed with suspicion.

A. Yes, sir; that is the idea.

By Senator Kidd: Q. Well, now, at the time of which you speak, when you were at Clarksburg and Grafton, were you engaged in any movement whatever to interfere with the free operation of the operators or the work of the men in the field?

A. No, sir; I was there making an investigation of affairs in that district as to wages, conditions of employment, hours of labor, the number of men employed, the various nationalities to which they belonged and such information as would be an assistance to our office both here and at Indianapolis.

Q. And it was in no wise detrimental to the operators?

A. No, sir.

By Chairman Gartlan: Q. Did the operators know you were doing that?

A. No, sir.

By Senator Kidd: Q. What suggestions if any have you to make about additional laws to regulate the appointment and conduct of guards and interference by them with the men who are engaged in peaceful avocations?

A. Well, I believe that these guards should be given to understand that they cannot assault people who go about peaceably and these guards should be put under bond. They should also be required to register in the different counties. I think that would have a tendency to stop assaults on innocent people.

Q. As it is, the operators who appoint them—if any assaults were committed—would hide behind the fact, would they, that they were not appointed for the purpose of assaulting people, and therefore the man who was assaulted would have no redress because the guard himself might not be worth anything?

A. Yes, sir; that is it; and I believe in addition to that that every man acting in that capacity, as well as constables and others, should wear a uniform in order that he might be distinguished from other people.

By Chairman Gartlan: Q. In the assaults you have spoken of have you been able to punish any of the guards for those assaults?

A. Yes, sir; we have had some punished, or they have been punishing some in certain sections. We had a case at Mount Carbon, and at various other places where we could reach courts that would at least give us a square deal, and these people would be compelled to pay fines. We have had some convictions; but it seems almost impossible for us to get a conviction in places where our organization has no hold, because usually the justices of the peace are so connected, and the environments are such, that we are always of the opinion that the other fellow will get the best of it.

Q. You spoke awhile ago about violations of the law—such, for instance, as having breakthroughs driven too far ahead.

A. Yes, sir. In other words, the break throughs would be driven longer than eighty feet. While since these new laws have been in effect, and since the department has insisted on them being complied with, the conditions in this valley have greatly changed, still there are mines that lack a whole lot of complying with that law; but I believe the department is right in not closing them, but instead of doing so giving them an opportunity to get into shape.

Q. The point I was wanting to get at was this: when you men—you United Mine Workers—do take it up, do they refuse to act?

A. When we find those conditions existing we usually notify the department, or notify Mr. Paul and he sends a mine inspector there, and our committee usually points out to the inspector when he arrives all the instances of violation of the mining laws; and of course even in our mines here we have just begun to recognize what the mining law is, and that what it says must be complied with, and our people are beginning to get active in seeing that the law is properly enforced. In quite a number of places around Montgomery there are old works that are not now being operated according to law, but our people are co-operating with the companies to get them in shape. They feel as though to stop the mines all at once in order to change the fans and put various other repairs in would simply mean that they would all be idle and that it would take four or five weeks to get them in shape.

Q. Does the mine department give you all the assistance necessary in that line? Do they always comply with requests and take notice of reports?

A. Well, I can only say this: Since I have been president I have attempted to give them my co-operation, and I think that especially—(interrupted)

Q. You misunderstand me. I mean do they give you their co-operation?

A. What time I have been in they have, because I have had occasion to call on them.

By Senator Kidd: Q. They respond, do they, when you call on them?

A. They have done so; yes, sir.

By Mr. Nugent: Q. Do you think there is any difference on either side of this river as far as general mining conditions are concerned? I mean is there any material difference in conditions on the K. & M. side and the C. & O. side?

A. No, there is not. We have the various seams of coal on each side of the river; they may vary some in thickness.

Q. What I mean is this: are there any more complaints coming in connection with the fellows on one side than there is on the other?

A. Yes, sir; my opinion is that there have been quite a number of complaints coming from the C. & O. side.

By Delegate Mitchell: Q. Mr. Davis, will you please show us how or by what means a proper labor organization renders a mine more safe to health and property?

A. Well, whenever our men are organized we have contracts, and we always feel it our duty to the men whom we have the contracts with to see that the mines are kept running in such a manner as will be to the best interests of the employer and the men. We have committees known as mine committees, and when complaints come to them from any certain location in a mine of the air being bad, or gas in a certain place, or a fall of rock, or bad timbering, this committee immediately goes and investigates this case and brings it to the attention of the general superintendent or mine boss; then they usually all get together and arrive at some understanding. Individually the men would have their own ideas about a certain piece of bad roof or timbering, or the driving of a certain entry through a certain section of the mine, which affects the interests of all the men, and these men would go ahead with it; with our organization we have a committee to sit on these cases—generally of practical men—the best men we can get around the mines—and the company always has the assistance of these three men in the case of the adjustment of any little disputes as to bad working places, water, gas, and air, and by that co-operation and by working through all the men it is profitable to the employer.

Q. That committee then is acting as inspectors. Is that ever voluntary or only upon complaint?

A. It is upon complaint and voluntary, too. In any part of the mine—and we teach it to them—where they discover any danger by a break in the track or anything that might cause the company to have a break down by a mule getting away and somebody getting killed, or by a trap-door being bad, or anything pertaining to the operation of that mine, inside and out, our people immediately inform the employer and render what assistance they can.

Q. By whom, or by what body, is this appointment made to these various committees, and more particularly this particular committee we are speaking about?

A. They are selected by the whole of the men.

Q. That is, by all those men who are working in that particular mine?

A. Yes, sir.

Q. Is there any danger under such a system as that of ignorance and rashness being placed in control instead of intelligence?

A. No; because under our laws if the company desires to appeal from the decision, they would take it up with our office here and we would immediately go there and see that injustice was not being done. Our laws are so regulated that our men cannot stop work while a dispute of any kind is pending; and we have so arranged our agreements that before any trouble takes place, the dispute goes through the various channels, even to our national president; but fortunately very few cases we have had have ever had to go that far.

Q. Is it ever necessary for you in your official capacity to interfere with the action of this inspecting committee?

A. Oh, yes; but this is not an inspecting committee; it is a committee that represents the men in any disputes. If a miner or a set of men in one entry or any section of a mine would say that the air is bad, this committee would immediately investigate that and if the air was bad they would notify the department here; but the men would continue to work with the exception of in that locality or that room, or a dozen of rooms, and as quick as it could be remedied these men would go back to work. For instance: we have had men who have been in a mine and because of too much of a good time a night or two before, the sweat will pour out of them, and they imagine they have to go home, and they charge it to bad air. Of course we want to continue the men and have them work every day they possibly can. We have had in some instances complaints against companies charging bad air when really the condition would not be very different from what it was a day or two before.

By Senator Kidd: Q. Well, your organization makes no unreasonable demands upon these operators as to the condition of the mines, does it?

A. No, sir.

By Mr. Nugent: Q. Isn't one of the real advantages of your association to be found in the weekly meetings which you and your associates attend and where you have a general discussion of all mining conditions?

A. Yes, sir.

Q. And the officials of the organization advise with the men as to the best means of remedying the different conditions in the mine?

A. Yes, sir.

Q. And by such means they co-operate with the company and get the best return as a result of their co-operation?

A. Absolutely so. There are twenty-five meetings being held this week in this immediate section to explain the result of this agreement so there will be no misunderstanding, and in order that everything may go along smoothly.

By Senator Kidd: Q. Then, as I understand, each operator in this section where you have an organization, enters into a written contract with you that the wages shall be kept at a certain figure for so long?

A. Yes, sir. The contracts are not made with individuals; they are made here in joint convention and they all become a part of it.

Q. Then, of course, it is to the interest of your organization to get the best results both for yourselves and the operators?

A. Yes, sir.

Q. Then each operator does not sign it but there is a committee from the operators that sign it with a committee from your organization, and all parties agree to be bound by that contract?

A. Yes, sir.

By Chairman Cartlan: Q. How do you find the solid shooting proposition?

A. We have in our agreement a clause to prevent men from shooting off the hard. We believe that an organization of the men means better men, and as a result of our agreement we get better men, and we give them to understand that wherever coal can be cut that they must cut it. I refer now to practical men. We have some trouble with inexperienced men. When they come they think all that is necessary is to take an anger and a keg of powder and blast a shot, and we simply tell them right in the beginning that they have either got to cut that coal or our men will refuse to work with them. I might say that here are some sections in our agreement that show what we think of solid shooting.

Q. Now read that and let's take it down.

A. "10. The miner shall be required to load his coal in every instance free from slate, bone, nigger-head and other impurities.

"11. All coal mined, drilled and blasted by the miners must be done in a practical and workmanlike manner, and in accordance with the State Mining Laws of West Virginia.

"12. In paying for coal before it is screened, it is not intended to encourage unworkmanlike methods of mining and blasting coal, or to decrease the proportion of screened lump, and any miner will be subjected to discipline who, from ignorance, carelessness, or any other cause, fails to properly mine, shoot and load the coal.

"13. In case any slate, bone, sulphur, or other impurities are sent out by the miner, it shall be the duty of the trimmer of the car to call the attention of the weighman, and check-weighman, where one is employed, to the same, so as to deduct the said weight from the ascertained weight of such car, and the miner so offending be notified; for the second offense he may be suspended for one working day or fined one dollar; for the third and each subsequent offense occurring in any one month, he may be suspended, discharged or fined \$2.50, at the option of the Superintendent; that in malicious and aggravated cases, the Superintendent shall have the right to suspend or discharge for the first or any subsequent offense.

"Any miner abusing or seeking to embarrass the trimmer for performing his duties shall be fined three dollars, or be discharged at the option of the Superintendent.

"It is understood that if the check weighman leaves his post to investigate the amount of impurities thrown out, or for any other purpose, the running of the coal over the tippie will not be suspended during his absence.

"Splint coal loaded with gas coal, when it is ordered to be separated, shall be considered as impurities, and shall be dealt with as such.

"The proceeds of all fines arising under this clause to be paid into the funeral fund. Under no circumstances shall the fines be remitted or refunded."

Q. What is your idea of having expert shot firers employed?

A. Well, there might be some mines in this State, where we have quantities of gas, where it might be necessary, but in this immediate section we are in such shape and the mines are such that I do not fear any result, or that any harm could be done us by having the shooting take place like it is done. There are mines, I believe, in the State—such as shafts—that I think ought to be properly considered and shot firers should be employed.

By Senator Kidd: Q. Then in the unorganized coal regions of the State there are no such agreements as the one to which you have referred here, so that the men and operators will co-operate together and look to each other's interests?

A. No, sir; there is no agreement.

By Charman Gartlan: Q. What is your idea with regard to the use of safety lamps, Mr. Davis? Could you estimate the amount of gas where their use would be required?

A. No; I am not in a position to tell exactly, but I believe it is something that should be left in the hands of the department. When it reaches a certain point—if there is too much gas in the mine—they should have the power to put on safety lamps.

Q. Well, do you think it would be necessary to order safety lamps where there was no gas found in a room but a small amount in the drill hole?

A. Well, no. I have worked in places where I have pulled the needle from the shot and let it stand while I was tamping the hole in the rib, and before I was ready to shoot I would put my lamp up to see about the hole, and whether it was all right, and I would touch off the gas from the result of that needle hole. This mine I refer to is a big mine at Gloucester, Ohio, and they never use safety lamps there. I am free to state that I am not as well posted as to the results of gas as some. I can immediately tell it when I am in a mine, as I have been a practical miner since I was nine years old; but I prefer to leave that subject to somebody who is better qualified.

Q. I asked you that as a matter of your experience.

A. Well, I can immediately tell the presence of it.

By Mr. Nugent: Q. In the mines in Ohio where you worked, haven't you known a number of instances where men have lit the gas and while it was not considered a gaseous mine these safety lamps were used?

A. Yes, sir; and in those places a man goes around every morning, and some of the rooms for instance have such quantities of gas that they will not let anybody go down in them. They will put up a notice of "Danger". That is, they won't let the men work in there that day. Whole sections have been let out; and I have seen the result of gas being touched off in rooms. It would come almost to the mouth of the room, running along the roof. But they never considered those mines sufficiently dangerous to put them on safety lamps.

By Delegate Mitchell: Q. You spoke about prosecutions that had been made against those who committed assaults. Have there been any prosecutions of men in your organization upon what were apparently trumped up charges?

A. Yes, sir. I was brought to Charleston myself during 1902, charged with conspiring under the Red Men's act. I was a representative in this field and we had a strike on. This was during the 1902 strike, and, by the way, we haven't had a strike since. They arrested me by having a lot of deputies put on a special train out of the hollow (this, by the way, was up at Winifrede) and they ran me to Charleston and I was held here quite a number of days. The case was supposed to be that I had conspired to take a fellow out and hang him up, so that it would intimidate the rest. There wasn't a thing in it. The night it was supposed to take place I was eighteen miles away, up on Campbell Creek. They held me down here about fourteen days and tried me before a justice of the peace. The case was never argued, and I had sufficient witnesses; still they kept me there and the case has never been argued yet. At the close of that time we got a settlement in this field and all cases were dropped. A fellow supposed to be a detective from Chicago was said to be in the camp and had these charges brought against me. During the time it seemed to me very evident that they were trying to put me in jail, as I was arrested then on two charges of violating injunctions while I was here at Charleston attending the trial. I felt as though there was somebody trying to "railroad" me to the penitentiary. Outside of that I have never had any trouble with any of them.

Q. Have you known of other instances of that kind?

A. Yes, sir; we have in our employ a man named George Dooley who was sent as an organizer to the Norfolk & Western. He was taken out of a hotel on a charge, and they cut him up and beat him up and left him for dead. I will say that we have had numbers of cases of this kind where we haven't got the names of the people; and it is our mistake in not keeping a record of these things so that we would be able to give you conclusive proof. Now, I know the names of a few of our people who have been assaulted around through here, but I do not know who did it. John P. Ireland, who is now dead, was one who was assaulted; Mike Harrington, who is now dead, was another. There was also G. W. Dooley, D. W. Williams, John Allen, Bert Powers, A. J. Barber and V. L. Johnson. I believe Mr. Johnson is here. There was also H. A. Woodrum, V. Massie, Hillard Barker, Robert Slack and E. D. Alton. Of course I know the names of some of these guards but I would rather not put their names in the record. A man in my position going around, they may perhaps feel as though I was trying to do them some injury, and what they would do to me would be a plenty.

By Senator Kidd: Q. When these men were assaulted, whose names you have heard, were they engaged in any violation of law, or were they going about peaceably?

A. Well, our information is that they were attending to their own business; but as I say, we haven't positive proof in many cases but we have the word of our representatives. I was at Mount Hope attending a convention there, and Mr. Harrington, now dead, an old man, was under our employ as an organizer. He was standing on the street and along came one of these fellows and said: "There is a d—d organizer!" and he hit the old man and knocked him down and liked to have killed him. We have had many, many cases which we never kept a record of—of our local men, such as miners around places that we never kept a record of. Hartgrave and Boyle, on the Norfolk & Western, were on a train and a fellow walked up and swore that they had stolen his pocket-book and they looked

down under the seat and pulled out the pocket book. I suppose you people have had this statement told you before—of how they beat these men up—both Boyle and Hartgrave—until they were even compelled to leave that section and go to Columbus, Ohio, where they staid in the hospital quite a length of time before they were able to get out. Mr. Nugent there—while he was in the employ of our organization—was sitting in a station over there, and before he knew what had happened some fellow had thrown—I guess it was a brick, at him, through the window, and hit him and left him lying in his own blood. These cases emanate from people of the character that these coal companies employ. I think that with proper restrictions, and by putting them under a good bond, that it would at least prevent them from being as antagonistic as they are; but I above all believe if there is anything that can be done to prevent such a class of people from having police authority, that it should be done, and that only the best people should be employed in that capacity. It is dangerous for any man to hit the line where they are working without them immediately inquiring as to who you are and what your business is, and they take a description of you, and if you are antagonistic to them they will forcibly eject you.

By Mr. Nugent: Q. Is it not your opinion that the leases on the houses and the trespass law have more to do with it than anything else?

A. Yes, sir.

Q. With an amendment to the law which holds rented property as private property and any person traveling on it as a trespasser, don't you think the evil would be largely corrected? In other words, isn't it that which leads to more of these assaults than anything else?

A. Oh, yes; you can't go into one of these camps up here without them telling you to get out and if you don't get out they will lead you out.

Q. And the question of assault comes under the law which provides that it is all private property?

A. Yes, sir; that coupled with our organization.

[This witness was requested to furnish the Committee with a copy of the agreement referred to in his testimony, which he agreed to do, but explained that a new edition was being printed and that it would be several days before the request could be complied with. Subsequently the agreement was forwarded to the Secretary of the Committee and appears in the record immediately following this day's proceedings.]

There being no other witnesses present, and no further business before the Committee, an adjournment was had to meet at the call of the Chairman.



# AGREEMENT

BETWEEN

KANAWHA COAL OPERATORS OF KANAWHA DISTRICT

AND

THE UNITED MINE WORKERS OF AMERICA.

April 1st, 1908, to March 31st, 1910.

Memorandum of Agreement made and entered into this 29th day of April, 1908, by and between the Operators of the Kanawha District of West Virginia, and the United Mine Workers of America, governing the operations of mines in the said district for the two years ending March 31st, 1910.

1. The 1906 Scale of Wages for mining and inside day labor shall be in effect as and from the 1st day of April, 1908.

2. There shall be no check-off, and there shall be no discrimination against union, or non-union men by the parties to this agreement or their representatives.

3. That the price paid in machine mining for loading coal in narrow work, by the ton, be the same as in wide work, and the excess price now paid for loading be paid on a yardage basis according to the number of tons of coal produced in each yard of narrow work, at the option of the operator.

4. It is understood and agreed between the parties hereto that the Operators in conceding the demand for a monthly pay, which demand is largely based upon the reduced tonnage of the mines on pay days and for several days thereafter, do so upon the distinct understanding that if 25% of the miners, or mine laborers at any mine shall absent themselves from work on any day when the mine is in operation, without permission from the Mine Foreman so to do, except only in case of sickness, then that particular mine, at the option of the Operator, upon the first or any subsequent offense shall immediately be put upon a monthly pay basis.

5. Check-weighmen may be placed on tipples at the expense of miners, and their duties shall be those prescribed by the law of the State of West Virginia, and all weigh scales may be tested by the miners at any reasonable time.

6. Employes have the right to trade where they please, and no coercion will be permitted to influence their trade.

7. The mining rate per ton for splint or hard coal shall be fixed upon a run of mine basis but screened lump coal may be mined provided the increased rate paid for screened lump coal shall be according to the percentage of screenings in producing screened lump as against mine run coal.

8. The Operator or his Superintendent or Mine Boss shall be respected in the management of the mine, and the direction of the working force. The authority to hire and discharge shall be vested in the Mine Superintendent or Mine Boss, and nothing in this agreement shall be construed to abridge the rights of the employer in either of these respects. If, however, any employe shall be suspended or discharged by the company, and it is claimed by said employe that an injustice has been done him, an investigation shall be conducted by the parties to the agreement, and in the manner set forth in rule 16, and if it is proved that an injustice has been done said employe, the Operator agrees to reinstate him. The investigation to begin immediately, and a decision to be reached within three days.

9. The Operator shall at all times be at liberty to load any railroad cars or barges whatsoever, regardless of their ownership, with coal, and sell and deliver such coal in any market, and to any person, firm or corporation, that he may desire.

10. Nine hours shall constitute a day's work: Nine hour day means nine hours' work at the face, exclusive of noon-time, six days a week, or fifty-four hours a week, provided the Operator desires to work the mine, and no local ruling shall in any way affect this rule, or impose conditions affecting the same, and any class of labor may be paid, at the option of the Operator, for the number of hours or fraction thereof actually worked at the hour rate, based on one-ninth of the scale, rate per day, except that when the men go into the mine to work in the morning they shall be entitled to two hours work whether the mine works two hours or not. If for any reason the regular routine work cannot be furnished the inside day labor for any portion of the first two hours, the operator may furnish other than regular labor for the unexpired time.

11. All labor shall be paid semi-monthly. Semi-monthly pay means that the miners shall be paid twice a month, pay days to be determined locally, and statements shall be issued to all employees not later than twenty-four hours prior to pay day.

12. The miner shall be required to load his coal in every case free from slate, bone, nigger-head and other impurities.

13. All coal mined, drilled and blasted by the miners must be done in a practical and workmanlike manner, and in accordance with the State mining laws of West Virginia.

14. In paying for coal before it is screened, it is not intended to encourage unworkmanlike methods of mining and blasting coal, or decrease the proportion of screened lump, and any miner will be subjected to discipline who, from ignorance, carelessness, or any other cause, fails to properly mine, shoot and load coal.

15. In case any slate, bone, sulphur, or other impurities are sent out by the miner, it shall be the duty of the trimmer of the car to call the attention of the weighman, and check-weighman, where one is employed, to the same, so as to deduct said weight from the ascertained weight of such car, and the miner so offending be notified; for the second offense he may be suspended for one working day or, fined one dollar; for the third and each subsequent offense occurring in any one month, he may be suspended, discharged or fined \$2.50, at the option of the Superintendent; that in malicious and aggravated cases, the Superintendent shall have the right to suspend or discharge for the first or any subsequent offense.

Any miner abusing or seeking to embarrass the trimmer for performing his duties shall be fined three dollars, or be discharged at the option of the Superintendent.

It is understood that if the check-weighman leaves his post to investigate the amount of impurities thrown out, or for any other purpose, the running of the coal over the tippie will not be suspended during his absence.

Splint coal loaded out with gas coal, when it is ordered to be separated, shall be considered as impurities, and shall be dealt with as such.

The proceeds of all fines arising under this clause to be paid into the funeral fund. Under no circumstances shall the fines be remitted or refunded.

16. The duties of the Mine Committee shall be confined to the adjustment of disputes between the Mine Boss and any of the miners working in the mine for whom this scale is made.

In case any local trouble arising at any mine through the failure of a miner or mine laborer to agree with the Mine Boss, the Mine Committee and the Mine Boss are empowered to adjust it, and in case of their disagreement, it shall be referred to the Superintendent of the company and the Miner's sub-district President, and should they fail to adjust it, it shall be referred in writing to the higher officials of the company and State officials of the Mine Workers to adjust it, and in all cases the miners and mine laborers and parties involved must continue at work pending the investigation and adjustment until a final decision is reached in the matter, as above set forth.

If any employee, for whom this scale is made, refuses to work because of any grievance which has not been taken up in the manner provided herein, and such action shall seem likely to impede the operation of the mine, the Mine Committee shall immediately furnish a man or men to take such place or places at the scale rate, in order that the mine shall continue at work; and it shall be the duty of any member or members of the Mine Workers, who may be called upon by the

Mine Boss, or Mine Committee, to immediately take the place or places assigned him or them, in pursuance hereof.

The Mine Committee in the discharge of its duties, shall under no circumstances, go around the mine for any cause whatsoever, unless called upon by the Mine Boss or by the miner or day man who may have a grievance that he cannot settle with the Mine Boss.

The foregoing shall not be construed to prohibit the Mine Committee from looking after the membership dues, and initiation fees in any proper manner.

Members of the Mine Committee employed as day men shall not leave their places of duty during working hours except with the permission of the Mine Boss or in cases involving the stopping of the mine.

17. The scale of prices agreed to for mining shall include the work required to mine, shoot and load the coal, and properly timber the working places in the mines, and the Operator shall be required to furnish the necessary props and timber to properly timber all working places.

If any miner shall fail to properly timber and care for his working place, and such failure shall entail falls of slate, rock and the like, or if, by improper or reckless shooting of the coal in room or entry, the mine props or other timbers, shall be disturbed or unnecessary falls result, the miner whose fault is the occasion of such damage shall repair the damage without compensation, and if such miner fails to repair such damage, it shall be considered a dischargeable offense, and he may be dealt with at the discretion of the Superintendent.

In any case where the Mine Boss directs the placing of crossbars to secure the roadway, then, and in such cases only, the miner shall be paid prices for such crossbars as may be agreed upon between him and the Mine Boss. In case of miners shooting bottom: should any of the props be loosened or displaced, thereby endangering the safety of the workmen, the miner agrees to reset same. The above does not contemplate any changes from the ordinary method of timbering by the miner for his own safety.

18. Should any employee absent himself from his work for two days, or persist in working irregularly, unless through sickness, or by first having notified the Mine Boss and obtained his consent, it shall be construed as a dischargeable offense; and in case of sickness it is the duty of said employee to notify the Mine Boss at once in order that arrangements may be made to fill his place.

19. All classes of labor are to work full nine hours, and going to, and coming from their respective working places, is to be done on their own time. All day men shall perform whatever day labor the foreman may direct, and a nine hour day means nine hours' work in the mine at the usual working places, exclusive of noon time, for all classes of inside day labor. This shall be exclusive of the time required in reaching said working places in the morning and departing from same at night.

Drivers shall take their mules to and from the stables and the time required in so doing does not include any part of the day's labor, their time beginning when they reach the change where they receive empty cars and ending at the same place. The prevailing customs relative to harnessing and unharnessing their mules shall continue.

20. The Operator shall see that an equal turn is offered each member, and that he is given a fair chance to obtain same. The check-weighman, where one is employed, shall keep a turn bulletin for the turn-keeper's guidance. The driver shall be subject to whoever the Mine Boss shall designate as turn-keeper in pursuance hereof. This rule is not applicable, and shall not be considered as preventing the Operator from driving entries as rapidly as he may desire, the regulation of the turn to be determined by the Mine Committee, the check-weighman, where employed, and the Mine Boss.

21. Miners shall drive double-shift entries when called upon to do so by the Operator, and 25 cents per yard extra shall be paid for pick entry and 20 cents per yard for machine entry.

22. A burial fund may be established by each mine or local, to which fund each miner shall contribute 25 cents per month until a sum of not less than seventy-five and not more than one hundred and fifty dollars shall have been created, when collections shall cease until the fund is reduced by death, when a collection of 25 cents per man per month shall again be made until the amount reaches the maxi-

mina agreed upon, and so on, and the Operator shall contribute in case of death of a miner, or any member of his family, an amount agreed upon by the Operator and the Burial Fund Committee. In consideration of this contribution, it is agreed and understood that the miners and day men will not cease work to attend the funeral of either miner, or member of the miner's family, except that in case the miner is killed outright while at work in the mine, in which event the mine may be closed the day of his death, resuming work the following morning. This is not to be construed to mean that individual mine workers or relatives of the deceased shall not attend the funeral if they so desire.

There shall be a committee appointed known as the Funeral Fund Committee to take charge of these funds, and make all necessary funeral arrangements in case of any death, and said committee shall be paid for such duties as may be agreed upon locally.

23. Machine men will be required to cut coal level and close to bottom, and all machine men leaving more bottom than four inches, except in case of pots, or extreme variations, will be required to lift same or it shall be lifted at their expense.

In case sprags are left by machine men, they shall be notified by the loader, and if they refuse to remove same, the loader shall do so, and be allowed 50 cents for so doing, the said 50 cents shall be charged to the machine men.

24. Under no circumstances will the Operator recognize or treat with any Mine Committee, or any representative of the United Mine Workers of America during the suspension of work contract to this agreement.

25. Where there is not sufficient room to gob the dirt and draw slate in entries with ordinary conditions the loader or miner shall lead it in bank cars and the company shall unload it.

26. All machine loaders shall be awarded two rooms, or equivalent of three rooms in thin seams for each two men, and they work "Buddies," and in that way lead from one room at a time, so that it will give an opportunity to cut the other room, and not lose any time to machine or loader, and the Operator will provide such rooms for each two men at the earliest possible moment, but in the event of territory becoming scarce from a squeeze or striking a horse-back, or any other unavoidable obstacle, this shall not be construed so as to diminish the output of the mine.

27. The following employees are not eligible to membership to the United Mine Workers of America: Mine Boss, Inside Boss, Weighman, Dock Boss, or Boss Trimmer, Stable Boss, Electrician and Night Watchman.

It is understood that in the event of a disagreement between Operators and Mine Workers, Engineers are required to continue to perform such work as is in line with their duties.

28. No mine shall be compelled to hire more than one man as head tracklayers; all others shall be known as helpers, and so paid, and all helpers shall be expected to do such work as is laid out for them by the head tracklayer.

29. For dead work where unusual conditions exist, the price to be paid for same shall be a question for local adjustment.

30. Where splint coal is separated and thrown back, to meet exceptional market conditions, and afterwards loaded, there shall be paid twelve and one-half cents (12½) per ton extra.

31. That this agreement shall continue for two years, viz., from April the 1st, 1908, to March 31st, 1910, unless in the meantime abrogated by the parties hereto in Joint Convention.

#### SCALE OF PRICES.

Basis—Ton 2,000 pounds—Run of Mine Coal.

#### KANAWHA THICK VEIN NO. 1 & 2 SEAMS.

Pick mining .....	\$ .45
Pick mining, Powellton Seam .....	.42½
Yardage in pick entries and breakthroughs between entries.....	1.00
Machine loading in room .....	.22¾
Machine loading in entries, breakthroughs in entries and room necks.....	.27½
Machine cutting in both rooms and entry.....	.05¾

## KANAWHA HARD COAL NO. 5 SEAM.

Pick mining .....	.47
Yardage in pick entries and breakthroughs between entries.....	1.10
Machine loading in rooms .....	.23 $\frac{3}{4}$
Machine loading in entries and breakthroughs in entries and room necks....	.28
Machine cutting in room .....	.06 $\frac{1}{4}$
Machine cutting in entry, breakthroughs between entries and room necks....	.07 $\frac{1}{4}$
Screened coal to be paid for on basis of percentage of screenings.	

## COALBURG SEAM.

Pick minings .....	.52
Yardage in pick entry and breakthroughs between entries.....	1.25
Machine loading in room .....	.28 $\frac{3}{4}$
Machine loading in entry and breakthroughs in entries and room necks....	.33
Machine cutting in room .....	.06 $\frac{3}{4}$
Machine cutting in entry, breakthroughs between entries and room necks....	.07 $\frac{3}{4}$

OVER 1 $\frac{1}{2}$  INCH SCREEN.

Pick mining .....	.75
Machine loading in room .....	.38
Machine loading in entry, breakthroughs in entry and room necks.....	.46
Machine cutting in room .....	.09
Machine cutting in entry, breakthroughs between entries and room necks....	.10 $\frac{1}{2}$

## RAYMOND CITY SEAM.

Pick mining over 1 $\frac{3}{4}$ screen per hundred bushels.....	\$2.62 $\frac{1}{2}$
Yardage in entries and breakthroughs between entries.....	1.25

## CEDAR GROVE SEAM.

Pick mining .....	.52
Yardage in pick entries and breakthroughs between entries.....	.85
Machine loading in room .....	.28 $\frac{3}{4}$
Machine loading in entries, breakthroughs between entries and room necks..	.33
Machine cutting in room .....	.08 $\frac{3}{4}$
Machine cutting in entries, breakthroughs between entries and room necks..	.09 $\frac{3}{4}$

## MILL CREEK CANNEL COAL.

Pick mining .....	.59
Machine loading in room .....	.30
Machine loading in entries and breakthroughs between entries .....	.34

## ONE INCH COAL.

Pick miners, one inch coal .....	.70
Machine loading, one inch coal .....	.35
Machine loading in entries and breakthroughs between entries.....	.39

Lewiston seam to be same as Coalburg.

Kanawha seam to be same as Coalburg.

Elk River seam same as Kanawha hard coal, or No. 5 seam and Coalburg.

Winifrede seam same as Coalburg.

Gauley River seams to be based upon Kanawha seams that apply to them.

## INSIDE DAY LABOR.

Water hauliers, machine haulers and drivers of 1 mule.....	\$1.90
Drivers of 2 mules .....	2.00
Motormen and machine runners .....	2.35
Track layers .....	2.25
Track layers' helpers .....	1.85

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Slate shooters .....	2.10
Couplers .....	1.10
Greasers .....	1.00
Trappers .....	.80
All other inside day labor .....	1.85

## FOR THE MINERS:—

J. S. WISEMAN,

B. S. HASTINGS, Prest. Sub-Dist. U. M. W. of A.

BEN DAVIS, Prest. Dist. 17 U. M. W. of A.

BENJ. F. MORRIS, Sec'y-Treas. Dist. 17, U. M. W. of A.

## FOR THE OPERATORS:—

D. T. EVANS,

EDW. SCHONEBAUM,

M. T. ROACH.

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**MINUTES OF PARKERSBURG MEETINGS.**
**September, 1908.**


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The committee met at the office of the Secretary, in the city of Parkersburg, pursuant to the call of the Chairman, on September 28th.

Present: Messrs. Gartlan, (Chairman), Kidd, Duty, Mitchell and the Secretary.

Absent: Mr. Strickling.

The Chairman explained that his principal reason for issuing the call for the meeting, was, to have the committee decide what if any portion of the hearings had before the committee should be printed.

After a full discussion of the matter on motion of Mr. Duty it was ordered that all the evidence taken and proceedings had, together with all exhibits filed, be printed, and that the same accompany the committee's final report.

On motion of Mr. Kidd the secretary was directed to proceed to Charleston with the record and make arrangements to have the same printed. He was further directed to edit and properly arrange the typewritten matter for the printer and to superintend its final proof reading and publication.

The Chairman laid before the committee a bill for balance due on transcript fees amounting to \$500.00, which, on motion of Mr. Duty, was allowed and ordered paid, as follows: To Louis E. Schrader, \$72.77; to John T. Harris, \$488.03.

The Chairman also laid before the committee a communication from Hon. A. R. Stallings asking an additional allowance of \$250.00 for legal services. The communication was filed and the consideration thereof postponed until a future meeting.

On motion an adjournment was had until tomorrow morning at 10 o'clock.

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PARKERSBURG, W. VA., Sept. 29, 1908.

The committee met pursuant to adjournment with the same members present as on yesterday.

The Chairman directed the attention of the members to the fact that on the 7th day of October a meeting of the mine operators of the state would be held in the city of Charleston, at which a number of mine experts from foreign countries would be present. He also stated that his business engagements would prevent him leaving home at that time, but he hoped the other members of the committee present would find it convenient to attend and gather all the information they could pertaining to the causes of explosions in coal mines, and the prevention of the same, and any other matters pertinent to the work of the committee. The Secretary was ordered to notify Mr. Strickling of the meeting and to request his attendance.

On motion an adjournment was had to meet at the call of the Chairman.

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On the 7th day of October the meeting of the Mine Operator's Association, above referred to, was held in the city of Charleston, at which there was a large attendance of operators from over the State. A number of foreign experts were also present.

Messrs. Kidd and Mitchell appeared at the various sessions on behalf of this committee and heard the reading of the numerous papers and the discussions had thereon. On the 8th, they accompanied the mine operators and foreign experts on a trip to Princeton and the newly opened coal fields of Mercer county along the line of the Deepwater Railroad, returning to Charleston the same evening.

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## MINUTES OF CHARLESTON MEETINGS.

January, 1909.

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Pursuant to call the committee met on the 14th day of January, in the Finance Committee room of the Senate, and there were present: Messrs. Gartlan, Kidd and Mitchell, and the Secretary.

Absent: Messrs. Strickling and Duty.

The chairman stated that the meeting had been called for the purpose of hearing any further evidence that it might be deemed necessary to produce and to make a final report, but that after the call had been issued an explosion had occurred at the Lick Branch mine, in McDowell county, and that he had requested the Chief of the Mine Department to have the district mine inspectors who visited the scene of the disaster present at Charleston on this day in order that the committee might have the benefit of their reports and an opportunity to supplement the same by any oral testimony that might be considered proper.

The chairman further stated that after writing this letter to the Chief of the Mine Department a second explosion had occurred at Lick Branch and that the district mine inspectors were then engaged in the work of rescuing and trying to ascertain the cause of the disaster.

The session of the legislature being on, and three members of the committee being members of that body.

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On motion of Mr. Kidd it was ordered that Delegate Mitchell act as a sub-committee, to visit the scene of the explosion, and that he be accompanied by Mr. E. C. Frame, stenographer, with instructions to furnish to the committee a copy of the testimony taken before the coroner, the same to be made a part of this record.

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In accordance with the above order, Delegate Mitchell and Mr. Frame went to Lick Branch on the 15th day of January, and remained until the following Monday—the 18th. On their return they submitted to the committee a copy of the testimony adduced before Coroner C. W. White, bearing upon both explosions.

The testimony adduced as to the first explosion is as follows:



# Lick Branch Explosion No. 1,

McDOWELL COUNTY,

December 29, 1908.

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TRANSCRIPT OF TESTIMONY TAKEN AT AN INQUISITION  
HELD AT SWITCHBACK, WEST VIRGINIA, ON SATURDAY  
AFTERNOON, JANUARY 2, 1909,

BEFORE

C. W. White, Justice of the Peace,

And the Following Jurors: S. J. Peters, W. H. Jackson, E. D. Creasy, J. L. Vernon, J. L. Wood and W. M. Bailey.

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Upon a view of the bodies of the following named parties who came to their death by an accident in the mine of the Lick Branch Colliery of the Pocahontas Consolidated Collieries Company, Incorporated, happening in McDowell county, West Virginia, on the 29th day of December, 1908.

Domnick Rose, John Hicks, Mathew Webber, John W. Miller, David Bolin, Joe Edmunds, Cleve Alexander, Pleas Cannady, Zeff Estes, John A. Holland, Charles Little, Wiley Little, George Meaket, James Calloway (known as Holland), Karp Tarrachuk, Trofin Harasmuk, Thomas Howell, Thomas Swain, Luna Naumuk, John Brown, Reed Anderson, Green Davis, Buck Williams, Samuel Beatty, Thos. Blevins, Waiter Reynolds, Joe Nizuk, J. E. Johnson, J. W. Edmondson, Scott Page, Tobe Webber, Nicolay Buschuke, Peter Poles, Kemp Sanders, Jim Smith, George Parvolic, Tony Palmara, Aseny Parbolic, Gregory Boresky, Pinus Buschuke, Robert Williams, Joe Lockett, Richard Lockett, Elzy Blevins, John W. Partin, Jim Roan, Jim Lockett, Abe Holland.

And also upon the bodies of two persons unknown, there lying dead.

PRESENT AT INQUISITION:—Judge J. H. Holt, L. C. Anderson, Isaac T. Mann, Chas. S. Thorne, Jenkin Jones, Jas. E. Jones, Edward H. Jones, Harry Bowen, Phillip Goodwill, Stuart M. Buck, H. B. Wright, G. C. Turley.

Mr. John Laing, Chief of Department of Mines, State of West Virginia; Mr. D. R. Phillips, Mine Inspector, 10th District; Mr. Wm. Warner, Mine Inspector, 7th District; Mr. Earl A. Henry, Mine Inspector, 5th District; Mr. P. A. Grady, Mine Inspector, 12th District.

J. H. MORRIS, Stenographer.

By Judge Holt: Your Honor, and gentlemen of the jury, our understanding is that the jury was impanelled sometime ago for the purpose of making this inquest. On what day was it secured?

Justice White: On the 30th of December, 1908.

Judge Holt: That was on Wednesday, then?

Justice White: Yes, sir.

Judge Holt: And they have been sworn and have examined the bodies that were found and brought out of this mine, and it is the desire—in the interest of truth—to hear some testimony covering the circumstances of the situation in order that the jury may find out, and the coroner as well, just what this situation is.

Now, the inspector for the State—the Chief Inspector of the State—and the inspector of this district as well as the other inspectors who are here on behalf of the State, and on behalf of good government as well, may desire to conduct this inquest. If they do we yield and have nothing to say, except in so far as we may be of assistance to you gentlemen. We have no axes to grind; we have no ulterior motives to subserve, except to lend such interest as we may have in consequence of local information that may lead to any inquiry that you desire to make.

On last night the inspectors requested the management of this company to have summoned as witnesses—through the coroner—all of the people who came out of the mine alive, very properly and very naturally, in consequence of the fact that we have a right to suppose—as the inspectors had a right to suppose—that they would probably be able to throw some light on the question. I believe that question, or request was made of the coroner and that the summonses were promptly issued, and I believe further that all of these people are here, present. Of course it is expected that they will be examined by the jury or the coroner, or the inspectors or the company, in order that we get at the truth. We have but one object here, and that is to ascertain the truth, and nobody has any ulterior motive or purpose to subserve. The only question that I desire to ask is this. Who is mine inspector for this district?

Mr. Laing: Mr. Phillips.

Judge Holt: Do you desire to conduct the examination, Mr. Phillips?

Mr. Phillips: No, sir; you go on in your own way.

Judge Holt: Does Mr. Laing desire to conduct it?

Mr. Laing: No, sir.

Judge Holt: Has any notice been given to the Prosecuting Attorney of the county?

Mr. Phillips: No, sir.

Judge Holt: Now, we are perfectly willing and offer to bring all of these people here, if Mr. Laing or Mr. Phillips, or any of the inspectors wish to put them on the stand and make any inquiries and ascertain any facts that they may be able to disclose, subject to an examination by the coroner, or any member of the jury, because I want to state right in the beginning, it is just as much to the interest of the owners of Lick Branch Mine, and the Pocahontas Consolidated Collieries Company, incorporated, in the business life of which this unfortunate affair has taken place, to ascertain the truth, as it is to the interest of the State to ascertain the

truth. There is much agitation as to the cause of the explosions in this country, and other countries, and everybody wants to know—not only from the standpoint of humanity, but from the standpoint of business as well—just what these causes are, if they can be ascertained. That may not be the scope of the duty of the coroner and the jury, but that always falls in incidentally.

The people who came out of the mine alive are here and if the state inspectors desire to examine them we offer them now. If they do not care to make such examination, and the coroner desires that they should be examined, we will put some of them, or all of them upon the stand, and you gentlemen (the State inspectors) can question them, or, we will question them, whatever your wishes may be. There is no formality about this matter, and I would like to hear from Mr. Laing, and from Mr. Phillips, just what course they prefer should be followed. I take it that we have a common purpose, and that is to get at the truth of the matter, because if we get at the truth, gentlemen, we will not only confer a favor upon the management here, but we will be of some value to the state as well. What say you, Mr. Laing? Do you care to put them on and examine them?

Mr. Laing: I will just state that as far as the department is concerned, I am perfectly willing you should conduct the examination. What the department wants to do is to put the officers of the Lick Branch mine on as witnesses in this case, and also the survivors of the explosion. You can examine them first, Judge Holt, or we will examine them first, just as you see fit, but we want their evidence, and such other as may be presented by Mr. Phillips, who was in charge of the district, and it is perfectly satisfactory to us that you proceed with the examination of these witnesses, and any questions that we may wish to ask we will ask after you get through, or, as you go along.

Judge Holt: Then, Mr. Phillips, Mr. Laing, your Honor and gentlemen of the jury, in order that we may waste no further time we will call the survivors of the accident first, put them upon the stand and ask them such questions as suggest themselves to us, and turn them over to you gentlemen to cross-examine as you will.

Mr. Laing: Is this jury the first jury—the original jury?

Justice White: Yes, sir; this is the original jury, and they have seen and examined each body as it came out.

Judge Holt: So far as coroner and the jury is concerned it might be well enough to identify and determine the dead, and then go into the examination of the other witnesses afterwards.

Coroner White: I was just going to suggest that we call the names of the dead, and ask the jury if they examined the bodies of all of them.

Judge Holt: We have a list of them right here.

Coroner White: Would you mind reading them off? I think they have a list of them also.

Judge Holt: According to our list there were forty-eight men identified, who were dead.

Coroner White: That is right.

Judge Holt: And two bodies were unidentified, or unknown. Now,

the list of the people who were identified—and we will undertake to show that by the doctors—were

Domnick Rose, John Hicks, Mathew Webber, John W. Miller, David Bolin, Joe Edmunds, Cleve Alexander, Gregory Borecky, Zeff Estes, John A. Holland, Joe Nizuk, J. E. Johnson, George Meaket, James Calloway (known as Holland), Karp Tarrachuk, Trofin Harasmuk, Thomas Howell, Thomas Swain, Luna Naumuk, John Brown, Reed Anderson, Green Davis, Buck Williams, Samuel Beatty, Thos. Blevins, Walter Reynolds, Richard Lockett, Elzy Blevins, J. W. Edmondson, Scott Page, Tobe Webber, Nicolay Buschuke, Peter Poles, Kemp Sanders, Jim Smith, George Parvolic, Tony Palmara, Aseny Parvolic, Pleas Cannaday, Pinus Buschuke, Robert Williams, Joe Lockett, Charles Little, Wiley Little, John W. Partin, Jim Roan, Jim Lockett, Ab. Holland.

Mr. Phillips, I would like to ask the jury if any of them are interested, directly or indirectly, in this company—the Lick Branch Coal Company?

Coroner White: Gentlemen, you can all answer that question.

[All of the jurors answered no.]

Coroner White: They all answer no.

Judge Holt: Then, we will call as the first witness, Dr. E. F. Peters.

Dr. E. F. PETERS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Dr. E. F. Peters.

Examination by Judge Holt:

Q. Give the stenographer your full name, doctor?

A. Elbert F. Peters.

Q. Where do you reside?

A. My home is at Maybenny, West Virginia.

Q. What is your profession?

A. Physician.

Q. Of what school, if any, are you a graduate?

A. I am a graduate of the Maryland Medical College, of Baltimore, Maryland.

Q. How long have you been practicing medicine since your graduation?

A. Since May, 1902.

Q. How far is Maybenny from the Lick Branch mine?

A. It is about a mile and a quarter, I suppose.

Q. You may state to the coroner and the jury, whether or not you were called to that mine on the 29th of December, 1908?

A. Yes, I was called there on the 29th of December.

Q. That was the date of the explosion in question?

A. Yes, sir.

Q. Where did you go in response to that call?

A. I went to the old driftmouth—the old main.

Q. You may state whether or not any other physicians were present there with you?

A. Dr. J. B. Lucas accompanied me when I went there, and Dr. S. D. Price got there just a few minutes after I did.

Q. State whether or not Dr. Hatfield was likewise there at any time?

A. Yes, sir; he was there at a later date—the next day, I believe.

Q. You may state whether or not any dead bodies were brought out of that mine on that day, or any subsequent day?

A. Yes, sir.

Q. How many, all told?

A. I have a record of fifty. I believe.

By Coroner White: On that date?

A. No, sir.

By Judge Holt: The question was how many, all told?

A. Fifty.

Q. You may likewise state, whether or not they were dead, and what was done in regard to identifying them?

A. I examined a portion of the men and so did Dr. Price, and then we together examined a number.

Q. Have you a list of the men whose bodies you examined and determined were dead?

A. I have.

Q. Did you have any evidence as to who they were?

A. Certainly: I had them identified—those I did not know.

Q. Can you give the names of the people whom you examined?

A. I can.

Q. Will you be kind enough to read to the coroner and his jury the names of the persons who were identified as dead by you, and who were brought out of the mine? Just your own list?

A. Very well.

[Witness reads as follows:]

	Nationality.	Social Condition.
Nicholay Buschuke .....	Russian .....	Unknown
Geo. Parvolie .....	Russian .....	Married
Zeff Estes .....	Colored .....	Married
Trofin Harasmuk .....	Russian .....	Single
Gregory Boresky .....	Foreigner .....	Unknown
Robert Williams .....	Colored .....	Married
Luna Naumuk .....	Russian .....	Unknown
Joe Edmunds .....	Colored .....	Single
John Hicks .....	Colored .....	Single
James Calloway .....	Colored .....	Single
John A. Holland .....	Colored .....	Married
Greech Davis .....	Colored .....	Unknown
Thomas Swain .....	Colored .....	Married
Walter Reynolds .....	Colored .....	Single
Scott Page .....	Colored .....	Married
Kemp Sanders .....	Colored .....	Married
Joe Lockett .....	Colored .....	Single
Jim Roan .....	Colored .....	Married
Karp Tarrachuk .....	Russian .....	Married
Mathew Webber .....	Colored .....	Single
Joe Nizuk .....	Hungarian .....	Unknown
Aseny Parvolie .....	Russian .....	Married
Buck Williams .....	Colored .....	Single
Richard Lockett .....	Colored .....	Single
Tobe Webber .....	Colored .....	Married
Jim Smith .....	Colored .....	Married
Jim Lockett .....	Colored .....	Single
John W. Miller .....	Colored .....	Married
John W. Partin .....	White, American .....	Single
Ab. Holland .....	Colored .....	Unknown
Cleve Alexander .....	White, American .....	Married
Pleas Cannady .....	White, American .....	Single
Chas. Little .....	White, American .....	Single
Wiley Little .....	White, American .....	Married
Samuel Beatty .....	White, American .....	Single
Unidentified man, No. 1 .....	Russian .....	Unknown

Q. How many all told in the list given by you, have you identified?

A. I have identified all the list I have given except one.

Q. What do they number, excepting the one you have not identified?

Witness: Just in my list?

Judge Holt: Yes, sir.

A. I haven't counted these separately; we have two unidentified in the whole list.

Q. Run over them and see how many there are?

A. [Witness does so.] I have thirty-five identified in my list and one not identified.

Q. Did you keep a record of the marks upon these bodies?

A. I did.

Q. Do you have any manuscript with you so that you could file it in the shape of a memorandum with the stenographer, as part of your testimony?

A. I have.

Q. Will you please do so?

A. Yes, sir; I will.

Q. And mark it Exhibit "A" 1, 2, etc., with your testimony?

A. Very well, I will do so. I can file these with the stenographer but they are the only copies I have.

Q. Then as I understand you can file a statement with respect to each body, which you will do?

A. Yes, sir; they are as follows:

[EXHIBIT "A-1."]

Name: Nicolay Buschuke; nationality, Russian; social condition, ————; occupation, load coal. Condition when examined: Mucous membrane of eyes and mouth badly burned; small lacerated wound over left eye, second degree burn of the face; true skin of back studded with numerous black particles resembling powder; burns of first and second degree over entire body, mostly second degree.

Price, Peters, Hatfield, Lucas and Kirk present.

Name, George Parvolic; nationality, Russian; social condition, married; occupation, contractor. Condition when examined: Mucous membrane of eyes and mouth congested; no signs of external violence.

Price, Peters, Hatfield, Kirk and Lucas present.

Name, Jeff Estes; nationality, colored; social condition, married; occupation, miner. Condition when examined: Body fairly well preserved; second degree burn of entire body excepting legs below knees and feet; both eyes burned, conjunctiva congested; mucous membrane of mouth burned; lacerated wound of one inch long over right parietal eminence.

Price and Peters present.

Name, Trofin Harasmuk; nationality, Russian; occupation ————; social condition, single. Condition when examined: Second degree burn of entire body; eyes destroyed and mucous membrane of mouth burned.

Peters, Price, Hatfield, Lucas and Kirkpatrick present.

Name, Gregory Boresky; nationality, foreigner; occupation, company work; civic condition, ————. Condition when examined: Sight of both eyes destroyed; mucous membrane of the mouth and eyes burned; burns of second degree and third degree of entire body; left side of face is studded with numerous fine black particles resembling powder; large lacerated wound one by two inches on forehead; lacerated wound two inches in length near juncture of posterior inferior angle of parietal bone; compound fracture of left parietal bone; simple fracture of upper one-third of right thigh; compound dislocation of left rib; blood from ears, nose and mouth.

Peters, Price, Hatfield, Lucas and Kirk present.

12:31-08—3:45 p. m.

Name, Robert Williams; nationality, colored; social condition, married. Con-

dition when examined: Mucous membrane of mouth and eyes deeply congested; no further signs found.

Peters, Price, Hatfield, Lucas and Kirk present.

Name, Luna Naumuk; nationality, Russian; civic condition, —————; occupation, —————. Condition when examined: Mucous membrane of mouth and eyes burned; bloody discharge from nose and mouth; second degree burn over upper extremities and chest down to waist line, (anterior and posterior); burns of first and second degrees of lower extremities and three finger nails torn from fingers of left hand.

Peters and Price present.

Dec. 31, '08—3:45 p. m.

Name, Joe Edmunds; nationality, colored; social condition, single; occupation, miner. Condition when examined: Second degree burn of entire body except back and feet; mucous membrane of mouth and eyes burned; large lacerated wound (1½x3 inches) of left side of head; several small cuts and many small abrasions on face.

Peters present.

Name, John Hicks; nationality, colored; social condition, single; occupation, —————. Condition when examined: Mucous membrane normal; several large abrasions on face.

Peters present.

Name, James Calloway, (known as Holland); nationality, colored; social condition, single. Condition when examined: Bloody discharge from mouth and nose; a few slight abrasions on left elbow.

Peters present.

Name, John A. Holland; nationality, colored; civic condition, married; occupation, miner. Condition when examined: No marks of external violence.

Peters present.

Name, Green Davis; nationality, colored; civic condition, —————. Condition when examined: Abrasions about face and exterior surfaces of the forearms; mucous membrane not burned; burn of first degree over abdomen, face and arms.

Peters present.

Name, Thomas Swain; nationality, colored; civic condition, married. Condition when examined: Mucous membrane of mouth burned; of eyes congested; second degree burn of body above waist line and first degree burn below waist including parts of the extremities.

Peters, Price, Hatfield, Kirk and Lucas present.

Name, Walter Reynolds; nationality, colored; social condition, single; occupation, —————. Condition when examined: Whole head and face crushed almost to a pulp; there were found two lacerated wounds running parallel to each other from temporal region backwards, (three inches); lacerated wound at right angle of mouth; punctured wound one-half inch in length in the center or just in front of the median line of lower jaw; right leg crushed off (a few strings left) at middle one-third; compound fracture of pelvis and compound fracture of right thigh; burn of second degree of arms and chest; chest crushed into a pulp.

Peters, Price, Hatfield, Lucas and Kirk present.

Name, Scott Page; nationality, colored; civic condition, married; occupation, driver. Condition when found: Fracture of middle one-third of right femur and lower one-half of right leg; eyes burned; second degree burn of face and neck, both hands, arms and anterior portion of chest; contusion of lower lip and bloody discharge from nose and mouth.

Peters and Price present.

Name, Kemp Sanders; nationality, colored; civic condition, married; occupation, company work. Condition when examined: Second degree burn of face and neck, small portion of right scapular region, most of left scapular region and shoulder, both hands and greater portion of both arms; no other visible injuries.

Price and Peters present.

Name, Joe Lockett; nationality, negro; civic condition, single; occupation, miner. Condition when examined: Bloody discharge from nose; no evidence of external injury.

Peters and Price present.

Name, Jim Roan; nationality, negro; civic condition, married; occupation, miner. Brought out of mine on night of December 29th, 1908. Condition when examined: Second degree burn of portions of face, over both scapular regions and both hands and feet; bloody discharge from nose.

Price and Peters present.

Name, Karp Terrachuk; nationality, Russian; civic condition, married; occupation, miner, shot coal for George Parvolic. Condition when examined: Congestion of eyelids; no evidence of external violence; brought out and examined December 31, 1908, at 3:45 p. m.

Peters, Price, Hatfield, Drs. Kirk and Lucas present.

Name, Mathew Webber; nationality, colored; civic condition, single; occupation, trapper. Condition when examined: Second degree burn of entire body, except left foot; incised wound one inch long, just below right molar bone; fracture of parietal bone (right) just below the parietal eminence; small lacerated wound just below left parietal eminence; both cornea burned; small fine abrasions and cuts over entire face below supra-orbital arches; bloody discharge from mouth and nose, and mucous membrane of lips burned.

Peters and Price present.

Name, Joe Nizuk; nationality, Hungarian; civic condition, ————; occupation, ————. Condition when examined: Burn of second degree of entire body; eyes burned but not severely; mucous membrane of mouth burned; brought out and examined December 30th, 1908 at 5:30 p. m.

Peters present.

Name, Tobe Webber; nationality, colored; civic condition, married occupation, driver. Condition when examined: Incised wound one inch long in median line in center of forehead and one and one-fourth inches long in center of forehead near edge of hair; both eyes destroyed; mucous membrane of lips burned; many abrasions covering face and eyes varying in size from the size of a pin head to that of a pea; second degree burn of entire body except hypogastric region and feet, and fracture of second, third, fourth and fifth ribs on left side, and fracture of lower one-third of left leg.

Peters and Price present.

Name, Jim Smith; nationality, colored; civic condition, married; occupation, company work. Condition when examined: No marks of external injury.

Peters and Price present.

Name, Buck Williams; nationality, negro; civic condition, single; occupation, trapper. Condition when examined: Eyelids swollen mucous membranes of eyes and mouth normal; bloody discharge from nose no evidence of external violence; brought out of mine and examined at 3:45 p. m., December 31, 1908.

Peters, Price and Hatfield present.

Name, John W. Miller; nationality, colored; social condition, married; occupation, miner. Condition when examined: No marks of external violence.

Peters and Price present.

Name, Charles Little; nationality, white American; social condition, married; occupation, miner. Condition when examined: No marks of external violence.

Peters and Price present.



Name, Wiley Little; nationality, white American; social condition, single; occupation, miner. Condition when examined: No marks of external violence. Peters and Price present.

Name, Jim Lockett; nationality, colored; social condition, single; occupation, driver. Condition when examined: Second degree burn over portions of the face; both hands and forearms; no other marks of violence.

Peters and Price present.

Name, Richard Lockett; nationality, negro; social condition, single; occupation, ————. Condition when examined: A small abrasion on each upper eyelid and one about one inch in diameter about the center of forehead; both hands showed cicatricial contractions, due to previous injuries.

Peters and Price present.

Name, John W. Partin; nationality, white American; social condition, single; occupation, trackman. Condition when examined: Mucous membranes of mouth and eyes burned; bloody discharge from mouth; first and second degree burns over entire body; contused and lacerated wound over anterior surface of pubes 1x2 inches; the true skin over anterior surface of entire body is studded with fine black particles resembling powder, especially prominent on the right side of the head and on back of right hand; there are also a number of small lacerated wounds over entire anterior surface of body; pigment of skin is not marked in this case, but the small black spots will not wash out of true skin; simple fracture of vault of skull; right ear partly torn off leaving ragged edges.

Price, Peters, Hatfield, Lucas and Kirk present.

Name, Abb Holland; nationality, colored; social condition, ————; occupation, ————. Condition when examined: Second degree burn of face, neck, arms, chest and anterior aspect of thighs; mucous membranes of mouth and eyes burned.

Peters present.

Name, Pleas Cannaday; nationality, white; social condition, single; occupation, miner. Condition when examined: Second degree burn of face, neck, both posterior scapular regions and both hands and arms.

Peters and Price present.

Name, Samuel Beatty; nationality, white; social condition, single; occupation, miner. Condition when examined: No marks of external violence.

Peters and Price present.

Name, Cleve Alexander; nationality, white American; civic condition, married; occupation, miner. Condition when examined: Second degree burn of scalp, neck, face and posterior thoracic region also second degree burn of both hands, left arm, anterior portion of left knee and both ankles; no other visible injuries.

Peters and Price present.

Name, Aseny Parvolic; nationality, Russian; social condition, married; occupation, ————. Condition when examined: Eyes destroyed; mucous membrane of mouth burned; incised wounds, one in each cheek, about one inch long; second degree burn of entire face and scalp with numerous scalp wounds varying in length one to one and one-half inches; right side of head and face was thickly studded with numerous black spots in the true skin; the true skin itself was black with pigments having been blown and burned into the skin. After the epidermis was removed the skin was washed with warm water and soap with no effect on the black color of the skin. The entire anterior surface of the body and limbs was covered with small cuts varying in size from one inch in length down to the size of a pin head; all these cuts showed black pigments that would not wash out with soap and water. The lateral and anterior surfaces of right arm, and the lateral and posterior surfaces of right side of chest were very thickly covered with the black spots and pigments exactly as was found on side of head and face. This condition, involving the true skin, was characteristic of a powder burn at close distance; second degree burn of entire body.

Peters, Price, Hatfield, Kirk and Lucas present.

Name, unidentified man; nationality, foreigner Russian; civic condition, ———; occupation, ———. Condition when examined: Fracture of right superior maxillary bone; compound comminuted fracture of right parietal bone, and escape of brain tissue; small incised wound three-fourths of an inch long at base of nose; small cut one-half inch long at lower right angle of mouth; both eyes destroyed; fracture of both bones of left forearm in upper one-third; fracture at base of nose and fracture of neck of left femur; second degree burn of upper one-half of body; left thigh, right leg and foot and small portion of dorsum of left foot. The whole of upper part of body is covered with black dust and dead or burned epidermis which was easily washed off leaving the true skin burned, but intact. Laceration of back of left hand at base of right finger; nails torn from fingers of left hand. Lacerated wound at external angle of eye. Description: Brown hair; small ears; age 22; front teeth were even and sound; neck three and one-half inches long; from point of shoulder to wrist twenty-four inches; circumference of thorax, thirty-three inches; height five feet six inches; length of leg thirty-one inches.

Peters and Price present.

By Mine Inspector Laing: Q. After identifying these bodies, and from what you have seen of them, what is your idea as to the cause of their death?

A. The cause of their death?

Q. Yes, sir.

A. There was a difference in the condition of the bodies—there was a considerable difference—some of them were severely burned, some over the entire surface of the body and some of them seemed to have no marks of violence at all—absolutely none.

Q. Were any of them bruised?

A. Yes, sir.

Q. To any extent?

A. Yes, sir; some to a considerable extent and some of them were mutilated to some extent.

Q. Some with arms and legs broken?

A. Yes, sir.

Q. Showing that they had been torn by some violence?

A. Yes, sir.

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DR. S. D. PRICE, a witness of lawful age, being first duly sworn testified as follows:

### Testimony of Dr. S. D. Price.

Examination by Judge Holt:

Q. Give the stenographer your full name?

A. Samuel Davis Price.

Q. What is your age?

A. Twenty-seven.

Q. What is your profession?

A. Physician.

Q. Where do you reside?

A. Switchback, West Virginia.

Q. How long have you been practicing medicine?

A. Since June, 1904.

Q. How many years would that be?

A. About four years and a half.

Q. Where did you receive your medical education?

A. University of Virginia.

Q. Did you graduate from that University?

A. Yes, sir.

Q. In what year?

A. In 1904.

Q. You may state whether or not you were called to the pit mouth of the Lick Branch mine after the explosion that is said to have occurred there during the day of the 29th of December, 1908?

A. I was.

Q. What other physicians were there present with you, if any?

A. Dr. Peters and Dr. Lucas were already there when I came; I got there I guess about fifteen minutes afterwards.

Q. When did Dr. Hatfield and other doctors appear?

A. He was not there that day; he came out the next day.

Q. You may state whether or not you remained at the pit mouth as the dead bodies were brought out?

A. Not all of them; I was there when some of them were brought out.

Q. You may state whether or not you identified any of the bodies that were brought out?

A. I identified a few myself—that I already knew before,—and then other persons identified others,—a good many of them.

Q. Have you a list of the persons either identified by you or by other persons in your presence?

A. Yes, sir; I have.

Q. Will you please produce before the jury and read to the stenographer the names of such persons, stating in connection with their names their nationality, and whether or not they were married or single, so far as you know?

A. John Brown; nationality we couldn't get only that he was a foreigner, is all we know. We did not know whether he was married or single.

David Bolin; colored and married.

Pinus Buschuke; Russian. We did not know whether married or not.

Reed Anderson; colored, single.

Peter Poles; don't know his nationality, or whether he was married or not.

Tony Palmara; could not find out what nationality, or whether he was married or not.

George Meaket; we could not find out his nationality or whether he was married or not.

Domnick Rose; Italian; single.

Thomas Howell; white American; single.

J. W. Edmondson; white American; married.

Tom Blevins; white American; single.

Elzy Blevins; white American; married.

J. E. Johnson; American; single.

Then one unidentified white man,—an American or supposed to be.

Q. How many have you in the list which you have just given—identified and unidentified?

A. Thirteen identified and one unidentified.

Q. Please file with the stenographer and for the benefit of the coroner and jury, a list of the names and their several conditions, &c., and mark them B-1, B-2, &c.?

A. Very well, I will do so.

By Mine Inspector Laing: Q. The names which you have just read,—what was the cause of their death? That is, were they the victims of this explosion, or whatever it was?

A. Yes, sir.

Q. Did they show any signs of being bruised? Or whether being burned or anything of that kind?

A. Some of them did; some were badly burned, and others had no signs of violence, whatever, that I could see, and some were very badly lacerated—mutilated, so to speak.

Q. And some were burned?

A. Yes, sir.

Q. You said that some of the bodies were burned and some mutilated. Were the bodies that were burned mutilated?

A. Some of them were and some were not.

By Judge Holt: Q. What do you mean by mutilation?

A. I mean some had simple fractures of the bones, and some lacerations of the soft parts; and some compound fractures of the bones; that is what I mean by mutilation.

Q. And of the legs and arms?

A. Yes, sir; and skull.

By District Inspector Phillips: Q. As a rule those who were mutilated, were they burned, also?

A. I don't know whether the majority of them were or not; I don't remember; it is all on the record there; a good many of them were, but whether the majority of them were or not, I don't remember.

By Judge Holt: Q. This list that you have filed with the stenographer gives the details of the injuries, does it?

A. Yes, sir; all injuries that I could see on them.

Judge Holt: Now, gentlemen, last night Mr. Phillips requested Mr. Jones to have everybody summoned who escaped from the mine alive—did you not Mr. Phillips?

Mr. Phillips: Yes, sir.

Judge Holt: We have undertaken to do that, and I expect we have them all, or very nearly all of them here, and we will take some of them for examination at random, and have subject to your call any others that we do not examine. Who this man is I don't know, but Mr. Jones, we will ask you to call Walter Martin, he being one of the people who escaped alive.

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WALTER MARTIN, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Walter Martin.

Examined by Judge Holt:

Q. Walter, speak out so that everybody can hear you, and especially the jury over there.

A. Yes, sir.

Q. How old are you?

A. Twenty-four years old.

Q. Where do you live?

A. Switchback, West Virginia.

Q. How long have you lived there?

A. Three years.

Q. What is your business?

A. Mining.

Q. A coal miner?

A. Yes, sir.

Q. In what mines at Switchback have you been working?

A. Lick Branch mine.

Q. How long have you been working in the Lick Branch mine?

A. Three years—ever since I have been here.

Q. Were you in that mine on the day of the explosion?

A. Yes, sir.

Q. In what part of the mine were you?

A. I was in the old side—on 9 entry in the upper end of 9 entry.

Q. In the old side, on the upper end of 9 entry?

A. Yes, sir.

Q. Were you in a room?

A. No, sir; on the chain pillar.

Q. Were you in the robbing section?

A. Yes, sir.

Q. What were you doing at the time of the explosion?

A. I just finished loading a car.

Q. Now, tell the court and jury what you know about that explosion, if anything. Just what you saw, if anything; what you felt, if anything; what you heard, if anything; and how you got out. Tell us the facts concerning the situation at that time, in the mine.

A. Well, sir, when I turned around to finish loading the car the dust and stuff came right over the car. I thought it was a fall or something somewhere, and I didn't or hadn't heard anything, and then I dropped right down behind the car, as I thought it would soon be over, and I laid there awhile and the heat came. I didn't see anything at all but dust, and then the heat came in, and I could hear something hit the side of the car like hail on a house, but still I couldn't see nothing, and could hear nothing no more than that hail hitting the car and I laid there a few minutes, and it got kinder a little better, and I moved out from there to make my way to the outside. I had no light, and I came up then from where I was at, through the break-through into the new main, and crawled along through the break-throughs. I had been going over it a long time, but I couldn't see anything, so I crawls along out to the new main, and after that made it all right; we could keep the light along a little.

Q. Did anybody help you out?

A. No, sir; nobody didn't help me at all; I hoped my buddy out.

Q. Who was your buddy?

A. Bruce Mann.

Q. Did you meet anybody coming into the mine when you went out?

A. I met one fellow after I got outside, and he said he was going back, but I don't know what he done, or anything about who he was.

Q. Did you experience any difficulty in breathing?

Witness: Whilst I was in there, you mean?

Judge Holt: Yes.

A. I got tight along in here right sharp, (indicating point.)

Q. Who were the people that were with you?

A. Myself, Bruce Mann, Lewis Cheatham, Sam Rose and Adam Harris.

Q. Did they get out without assistance?

A. Yes, sir; they made it pretty well, all except my buddy; me and Sam Rose assisted him out.

Q. Did you see any fire in there?

A. No, sir; I didn't see no fire.

Q. Did you hear any noise?

A. No, sir.

Q. What was the first thing that attracted your attention?

A. The dust; it struck the car and came over this car.

Q. What brought it?

A. I don't know; I couldn't tell that. It was the explosion, I suppose. I don't know what it was; I never was in anything like that before. I had no idea what it was. I thought it was a fall.

Q. How did the air feel?

A. It was warm.

Q. Was it warm at first or cold?

A. It was kinder warm all the time, and it got hotter. First the dust and stuff came pretty warm, but it got hot after this first dust passed off; it got pretty warm.

Q. How did it strike you,—gently or with violence?

A. It didn't strike me at all. I was behind the car and staid behind it.

Q. That protected you, did it?

A. Yes, sir; there ain't a scar on me at all; nothing hit me at all.

Q. What time did you go into the mine that morning?

A. About 8 o'clock. I stopped at the shop to have some tools fixed up and I was a little late getting in. I generally got in about seven o'clock in the morning.

Q. In what condition did you find the air in the mine that morning?

A. The air was good where I was at, as it ever had been—about as good as I ever saw it anywhere. I was right on the main entry, and it was all right.

Q. You may state to the court and jury whether or not you saw anything wrong with that mine on that day?

A. No, sir; nothing wrong no more than usual. It seemed to be all right. If there had been anything wrong I would have been out; I would have come out. It seemed to be all right and I never saw it in better shape where I was at. I don't know anything about it at other places, where this came from.

Q. You were pretty badly scared, weren't you?

A. Yes, sir.

By Mine Inspector Laing: Q. What did you say your name was?

A. Walter Martin.

Q. You say you have been working in this mine for about three years?

A. Yes, sir.

Q. What part of the mine have you worked in during that time?

Witness: In the whole time, you mean?

Judge Holt: Yes.

A. The first work I did here was on 7 entry, which was robbed out, 6 the first and 7 and 8 until they were robbed out last year, and then I went on 9, where I was working now. I worked there awhile the first of the year, and then came over to the new main and taken some narrow places. These pillars stopped, and when them pillars started up again, I went back there. I worked on pillar work most of the time and that is why I was changed back there.

Q. How much coal do you usually take out? How wide are those pillars?

A. I suppose about sixty feet.

Q. What was the number of the pillars you were working on—the number of the room?

A. It was a chain pillar; you cut through and stump it off.

Q. Were you working on that same pillar on the 29th of last month?

A. Yes, sir.

Q. How wide was your face, that you were working, back on that chain?

A. I had cut through into the breakthrough; it went straight across; I was cutting angling like this (indicating) and I just got through and was out of the upper end of the breakthrough and was just starting into this next block to take it out.

Q. How long had you been working on them pillars previous to their being stopped?

A. I only been up there—you mean the last time I went back there?

Q. No; you said awhile ago that you had been working on them pillars, and they had stopped them, and you went to another part of the mine, and then afterwards they started up, and you came back; now, how long had you been working on these pillars before you were stopped the first time.

A. I only took out about twelve foot of coal, and it will fall up again or stump again.

Q. For how high?

A. I couldn't tell; it fell plumb in.

Q. So you cannot get on top of it?

A. No, sir.

Q. Does that make much wind, or any wind when that falls?

A. No, sir; not a great deal.

Q. Nothing that would excite you?

A. No, sir.

Q. There was nothing mined on those pillars that morning that would cause a wind-storm, was there?

A. I seen no fall up there that morning, after I went around there, at all.

Q. What number of pillars were you on?

A. On the chain pillar; it wasn't numbered.

Q. All your coal went out of a certain room, didn't it?

A. It came right down the air course. There is rooms on each side numbered all right,—about 29 and 27,—but I wasn't working in them.

Q. You were pulling the chain pillar in there, in front of 29 and 27?

A. Yes, sir.

Q. And you didn't notice anything on those pillars that morning, previous to this hot wave coming?

A. No, sir.

Judge Holt: Just state there that Mr. James Ellwood Jones points out, with the assistance of the witness, where he was working, and shows it to the jury.

Mr. Jones: The mine foreman is better acquainted with that than I am, and he can point it out. Mr. Bowers is right there.

Mr. Laing: Very well, let him do so.

(Mr. Bowers points out place to jury.)

By District Inspector Phillips: Q. Mr. Bowers, how many rooms had been on that entry?

A. Twenty-six.

Q. There had just been two stumps taken out?

Mr. Bowers: Yes, sir.

By Mr. Laing: Q. During the time you have been working in this mine have you ever noticed anything that would cause you to be suspicious of the mine in any way, shape, manner or form?

A. No, sir.

Q. Have you never,—during the time you have been working in this mine,—seen any gas or any flame, or anything of that kind?

A. No, sir.

Q. Have you heard any rumors of such in the mine?

A. No, sir.

Q. How much powder do you take in the mine with you?

A. A half gallon for myself and half a gallon for my men—five pounds to the man.

Q. You took five pounds to the man?

A. Yes, sir; he carries his in, and I carries mine.

Q. How many did you work altogether?

A. Only two.

Q. Then you would have ten pounds of powder in there,—the two of you?

A. Half a gallon, I reckon that is what you call it.

Q. When you are working on those pillars how do you get the coal loose?

A. The bottom of it works all right, and you have to pop the top a little.

Q. You mine the bottom and you pop the top?

A. Yes, sir; it generally works out all right in the bottom but it sticks on top.

Q. Then you dig the bottom out and pop the top?

A. Yes, sir.

Q. Does everybody else do the same way?

A. Yes, sir; I suppose so.

Q. Where did you say you worked when the pillars were stopped?

A. On the new main side.

Q. On the new main side?

A. Yes sir.

Q. Did you drive a heading?

A. Yes, sir.

Q. What entry did you drive?

A. Second cross entry on 3.

Q. How did that entry usually go, up or down?

A. Sometimes it had a little rise and sometimes it went down.

Q. How wide was that entry?

A. 12 feet.

Q. How did you drive it—by machine or pick mining?

A. Machine.

Q. It was all mined by machine, was it?

A. Yes, sir.

Q. How did you shoot that coal? How deep was that coal mined with the machine?

A. Seven feet.

Q. How much cut—that is, how high a space did that machine make? What space did it make under the coal? How high did the machine cut? I mean the chain on the machine.

A. It cut about six inches, I suppose. Six, or something like that.

Q. Before you shot that coal did you load what the machine had cut, or did you shoot it down with the machine cuttings in your entry?

A. Sometimes I would load it and sometimes shoot down first.

Q. Where does it usually throw the cuttings from the machine?

A. It throws it on the side of the rib.

Q. It never threw it under the cut?

A. No, sir.

Q. Did you ever see any coal that was undercut? That is, did you put your holes on the solid at the time you did that shooting?

A. No, sir; when we didn't have the machine we would have to wait until we got it.

Q. How many holes did you put in a 12-foot place?

A. Sometimes we had as many as four holes.

Q. How did you place those four holes?

A. We put one in the middle and knocked that out and put two on the side and sometimes it didn't pull it plumb back, but it always pulled the front of it, and if it didn't pull plumb out, we shot it again—popped it out.

Q. When did you shoot that? Would you load that middle hole out before you shot the sides?

A. Yes, sir.

Q. How much powder did you put in that hole?

A. Fifteen to twenty inches.

Q. In the middle hole?

A. Yes, sir.

Q. Seven feet deep?

A. Yes, sir.

Q. Where was that hole situated? That is, from the top of the bottom seam, where was that hole situated?

A. Right in the middle—over the bone; I suppose that is what you mean.

Q. Yes, but I want the location of the hole.

A. Yes, sir.

Q. You say that blew it from there down?

A. No, sir; it knocked the whole thing out from the top to the bottom.

Q. And you put fifty inches of powder in that hole?

A. Fifty? No, sir; I said from fifteen to twenty, owing to how it was—owing to what shape it was in—the way I charged the hole.

Q. What is the diameter of your cartridge that you put in that hole? Would it be two inches thick?

A. About one and one half inches, I reckon.

Q. What was the width of your auger?

A. I suppose two inches, or two and one half inch hole.

Q. Why didn't you make the cartridge the same thickness as the hole?

A. If we made it the same size as the hole it wouldn't go in. You have to make it smaller. If you didn't it would hang—it wouldn't go back.

Q. What is the reason you didn't use loose powder in that hole?

A. Loose powder?

Q. Yes; put it back there in the same way that you would put it into the cartridge?

A. We had no way to do that.

Q. Had you ever been instructed to do it that way?

A. No, sir.

Q. What did you tamp that with?

A. Wet tamping; we would get slack and water and tamp it up.

Q. When you shoot in the middle—when you put that shot off in that hole—you call that the heaving hole, don't you?

A. Yes, sir.

Q. And you say you fired four holes in a place twelve feet wide?



A. Yes, sir.

Q. Now, after you shot this heaving hole did you have another one drilled on the other side, so as to fire that one also?

A. We generally shot one hole at a time; it pulled better.

Q. When did you drill them?

A. I drilled them one at a time.

Q. You drilled your holes one at a time?

A. Yes, sir.

Q. And you were governed as to your second hole by what your first hole shot down?

A. When I drilled that middle hole and shot that, and loaded the coal, I could tell exactly how to shoot, and how much to put in it, to save my powder and all like that. If you shot them all at the same time, this middle hole might pull all that coal and a man would just lose his powder. We shot one at a time and loaded it out and then we could tell how to shoot the others.

Q. That was your general practice, was it?

A. Yes, sir.

Q. As I understand you now, you used about four holes in this twelve foot machine-mined place?

A. Sometimes we didn't use but three and sometimes we used five. Sometimes after we load up we would have two little pops, and you pop the corner to make it even for the machine. Sometimes it don't take more than six or seven inches; just some little place that it would be dangerous to run the machine under; it don't take all that powder for a hole, you know.

Q. When you shot four holes, where did you put your second shot, or second hole?

A. I put it on the rib.

Q. That is your second one?

A. Yes, sir.

Q. Where did you put your third one?

A. On the next rib.

Q. Where did you put the fourth hole?

A. Sometimes I didn't use that. If it was necessary after loading the coal, I would pop off a lamp may be that didn't come with these three holes; perhaps there might be a little hanging on both sides.

Q. Then, what you mean to say to us, is, that you usually used three holes in that entry?

A. Yes, sir.

Q. And then you fired the middle hole?

A. Yes, sir; it would sure take three holes to pull.

Q. Then you never had less than three holes?

A. No, sir.

Q. And you usually fired the hole in the middle, first?

A. Yes, sir.

Q. And you put from fifteen to twenty inches of powder in that hole?

A. Yes, sir; in that hole.

Q. And you used a one and one half cartridge—that is one and one half inches thick—and fifteen to twenty inches long?

A. Yes, sir.

Q. Now, how much powder did you put in the right hand hole, or on the right hand side? That is, how much did you put on the rib?

A. Sometimes about eight inches or ten inches, and sometimes it would take more than ten or twelve.

Q. Not more than that?

A. No, sir; the middle hole is the main hole.

Q. After you fired the middle shot how long was it until you fired your rib shots?

A. I does that after I load the coal out.

Q. You never shot the second before you loaded the coal from the first one?

A. No, sir.

Q. After you load the coal from your middle shot how do you fire your rib shot?

A. I fire them straight with the rib.

Q. Do you shoot one after the other?

A. Yes, sir.

Q. For instance, after you shot your right hand rib how soon would you fire your left hand rib?

A. If I had a car I would load that up; if I did not, I would shoot the other one.

Q. How much powder did you say you would put in those side holes?

A. From eight to ten inches, and ten to twelve inches, or something like that.

Q. And the same size cartridge?

A. Yes, sir.

Q. During the time that you were driving that heading, and you were firing these shots, did you ever stand where you could see the flame, or did you ever see a flame from any of those shots in any of those entries?

A. No, sir.

Q. You never did?

A. No, sir.

Q. You never ignited the smoke by going back after a shot?

A. No, sir.

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J. T. BYRD, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of J. T. Bird

Examination by Judge Holt:

Q. Please tell the court and jury your full name?

A. James Thomas Byrd.

Q. Where do you live?

A. Out here at this power house.

Q. In the neighborhood of Switchback?

A. Yes, sir.

Q. That is your post office, is it?

A. Yes, sir.

Q. What is your business?

A. Track-layer.

Q. In the mines?

A. Yes, sir.

Q. In what mines have you worked?

A. I have worked in several mines in the coal fields, but I am working in Lick Branch at the present time.

Q. Name some of the mines in which you have worked.

A. I have worked in the Cooper mines, and Booth-Bowen mines, Caswell Creek, American Coal Company, over here, Crane Creek, Pinnacle—I believe they call it—Wide-mouth, Hiawatha, Pocahontas, Coaldale and Switchback.

Q. How long have you worked in the Lick Branch mine?

A. I suppose I have been in the Lick Branch mines a little over two months.

Q. What were you doing there?

A. Laying track.

Q. Were you in this mine on the day of the explosion, on the 29th of December?

A. I was.

Q. What did you go there for?

A. To lay track.

Q. What time in the morning did you enter the mine?

A. I entered the pit about 7:05.

Q. What time in the day did you come out?

A. I couldn't tell you; it was something after two—between two and three o'clock; I couldn't tell you exactly what time I came out.

Q. In what condition did you find the air in that mine, when you went in, in the morning?

A. I found the air very fair everywhere I was at.

Q. Were you in there at the time of the explosion?

A. I was.

Q. At what point?

A. I was near the outside—near the drift—at the run-around, it is called.

Q. What portion of the mine had you been in prior to that time?

A. I had been in what they call nine entry, and what they call Italy.

Q. What had you been doing there?

A. The first thing I done on nine entry, I loaded three cars of rock and muck, and then the boss came and moved us from there to Italy.

Q. What did you go to Italy for?

A. To lay some track.

Q. What portion of the mine is called Italy? Describe it as best you can.

A. I believe they describe it as dip B entry; I believe that is the name of it.

Q. How long were you over there?

A. I arrived there about something near twenty minutes until 12 o'clock.

Q. How long did you remain?

A. I left that point at twelve minutes past 2 o'clock.

Q. What did you do while you were there?

A. I laid track up to the face of two places.

Q. Did you see anything wrong with the mine that day before the explosion?

A. No, I didn't really see nothing wrong but I had a peculiar feeling over me.

Q. What was that feeling?

A. I just felt uneasy, or something like that.

Q. Do you know any cause for it?

A. I do not.

Q. It was a sort of a premonition, was it?

A. I suppose it was.

Q. You had been in explosions before, had you?

A. Yes, sir; I have.

Q. Did you find any gas in that mine that day?

A. I did not.

Q. And the air, I believe you said, was all right so far as you know?

A. The air seemed to be good, as far as I know.

Q. Tell the jury whether or not you saw anything wrong with the mine in any direction—that you discovered?

A. I saw nothing wrong with the mine as far as I went down on that place they call Italy, but that place seemed a little curious to me, and the air felt heavy.

Q. From Italy where did you go?

A. I came to the outside or to this run-around.

Q. And were there when the explosion took place?

A. Yes, sir; I was at the switch of that run-around, when the explosion came.

Q. How far is that from the driftmouth?

A. I couldn't tell you.

Q. You say you had an uneasy feeling, the reason for which you don't know. Did you express that to anybody?

A. I did.

Q. To whom?

A. To the man that was working with me.

Q. And what answer, if any, did you receive?

A. There was one of them that wanted to come out.

Q. And what did the others want to do?

A. The others? They seemed to think I was just scaring them.

Q. Now, at the time of the explosion, be kind enough to tell the jury all you know about it, and in your own way give what you saw, if anything; what you heard, if anything; what you felt, if anything; and what you did, if anything. Just give your own account of it, if you please.

A. Well, what made me feel perhaps uneasy was after I went to this place

they call Italy I saw several flasks of powder. I suppose it was powder; I never picked up the flasks and examined them; and then I went round into the left hand place—first left hand place—and there was two miners in there, they had bored three holes—two rib holes and a heave hole—and they shot that; I don't know whether they shot them together, or not; but it deafened me, and it rung in my ears for five or six minutes. I then went round into the other place and I laid track in that place, and I was anxious to get out of there before shot time because I was afraid of that powder that they had on the entry; also there was a keg setting close by.

Q. A keg of what?

A. I don't know what was in it, but I took it and shook it, and it seemed to be very nearly full of something that rattled.

Q. Was it a powder keg?

A. Yes, sir.

Q. Where was that powder keg located?

A. It was located in the second right hand place, I believe, in Italy as you go to the right in Italy.

Q. What time of the day was that?

A. It was about 12 minutes past 2 o'clock. It was probably 2 o'clock when I came from there.

Q. Now, where did you go from there—from that place?

A. I came to this run-around.

Q. Where were you when the explosion overtook you?

A. I was at the run-around; at the switch on this run-around.

Q. What then occurred, if anything?

A. There was a very heavy wind, or concussion, and it knocked me down, and the air kinder stifled me, and I got on my knees and crawled to where there was a trip of loads on the loaded branch, and they had run together. I climbed over them, and made it to the outside.

Q. Did anybody assist you out?

A. They did not.

Q. At what driftmouth did you come out?

A. The old drift.

Q. Was anybody else there at that time?

A. Yes, sir; there was several around there.

Q. Who were they?

A. I couldn't tell you who was there. Mr. Miller was there for one; the blacksmith and his helper, also.

Q. Did you meet anybody coming in as you went out?

A. No, sir.

Q. Now, going back to Italy, and at the place where this keg of powder was discovered—if you can either by yourself or with the assistance of anyone—please turn to the map there behind you and point out the location of the keg that you saw?

A. I don't know whether I would know it on the map or not.

Mr. Bowers: Here it is right here at the mouth of 11 room dip D. entry.

Q. Have you pointed out on the map, Mr. Byrd, where this was?

A. I have.

Q. What is the place?

A. This place right here (indicating on map.)

Q. What do you call that?

A. 11 room.

Q. What entry?

A. Dip B entry.

Q. Who was it that had that keg there, if you know?

A. It was that contractor; they called him Big George, I believe.

Q. Was he killed in this explosion?

A. He was.

Q. Do you know what his nationality was?

A. Russian, I believe.

Q. Was he killed in this explosion?

- A. He was.
- Q. What time was it in the morning that you saw him and this powder there?
- A. It was about 2 o'clock when I saw this powder.
- Q. Then you went from there out to the run-around or whatever you call it?
- A. Yes, sir.
- Q. How long was it after you saw this powder before the explosion occurred?
- A. It was between twelve and fifteen minutes, the best I can get at it. I never paid no attention to my watch when the explosion came.
- Q. At the time of the explosion did you hear any noise?
- A. I did.
- Q. What was it?
- A. I heard a lumbering at the entry, a piece from me, but I couldn't tell what it was.
- Q. Did you feel anything?
- A. Yes, sir; I felt the dust and hot air.
- Q. Did you see anything?
- A. I saw a light back behind me but I couldn't tell what that light was. There was electric lights behind me.
- Q. You couldn't tell whether that came from the electric lights, or not?
- A. No, sir; I couldn't.
- Q. Did you receive any injury?
- A. I did not.
- Q. Were there any men about that keg of powder at the time you saw it?
- A. I left two helpers right at the keg of powder, or just below the keg of powder.
- Q. Whose helpers were they?
- A. My helpers. I think Mr. Miller went back and taken them down in below there, and probably he took them further down from the powder.
- Q. Where was Big George at that time?
- A. I believe Big George was standing around there, too, and it seems to me that there was another man standing around.
- Q. Do you recall who he was?
- A. No, sir; I cannot.
- By Justice White: Q. I would like to ask the witness if there was anybody boring a hole in the face of 11 room where that keg of powder was?
- A. I wasn't at the face of the place; I was only at the mouth of the place.
- Q. Was there anybody at the place?
- A. I couldn't tell you.
- By District Inspector Phillips: Q. You don't know whether they were preparing to shoot there or not?
- A. No, sir; I do not.
- Q. What is the reason you went out?
- A. I went to fix a guard rail that was torn up on the main entry.
- Q. You didn't go out because you were afraid?
- A. No, sir.
- By Mine Inspector Laing: Q. What day was it that you say you were down in this little Italy, where you saw these three holes drilled, and the shooting of them deafened you?
- A. It was the day of the explosion.
- Q. What day was that?
- A. It was Tuesday, the 29th, I believe.
- Q. Now, I understood you to say sometime ago—in answer to Judge Holt's question—that you went out of there because you had seen three holes drilled and shot?
- A. I said I had seen three holes drilled and heard them shot.
- Q. And that the reason for your going out was that you had seen this excessive amount of powder, as you say, and from that fact you got scared and went out after they fired them and shot that powder off. Is that a fact?
- A. I guess there is a little misunderstanding there. I had finished my work in those working places, and went down to the mouth of this place where this powder was, and when I said it made me uneasy, it was those shots.

Q. Then, if you said awhile ago that you went out of there because you were afraid of this powder, you were mistaken, weren't you?

A. That is a misunderstanding.

Q. Then you went out of there because your duties called you out of there, and you did not go out of there because you were scared and afraid to stay in there?

A. I went out of this place where those shots were fired—from that place down to another place. I had finished the work in those two places, and these shots were fired and it made me uneasy. After I had seen this powder down there it made me uneasy—the careless handling of this powder.

Q. What do you mean by the careless handling of that powder?

A. It seemed to me that they shot them holes too heavy.

Q. Did you see those holes?

A. No, sir; I never seen them after they were fired.

Q. In what place were those three holes that sounded heavy to you?

A. It was in the first place as you go into the Italy part.

Q. How far is that place from the entry?

A. I couldn't tell you how far it is.

Q. How far did it sound to you?

A. I was in the next adjoining place, but it was close to me when it was fired; just a pillar between us, you know.

Q. And it was a short distance, and the sound came over on the opposite rib and back to where you were?

A. It sounded in that next place hard enough to almost deafen me.

Q. Did the sound come through to where you were or did it come around?

A. It came around, I guess; I don't know how it came in there.

Q. And you say the sound from that shot almost deafened you?

A. Yes, sir.

Q. Did it sound any louder than any other shot you had heard in there previous to that time?

A. Yes, sir; it did.

Q. But you were not scared?

A. I felt uneasy; I couldn't say I was scared but I had just an uneasy feeling.

Q. And you say the reason you went out of there was not because you were scared, but that your duties called you away from there?

A. They called me to do other work at another place.

Q. Then, when you said awhile ago that you were scared and went out of there, you didn't mean to say that?

A. If I said that I didn't mean to say it.

Q. That was a mistake?

A. Yes, sir; I said I felt uneasy; most anybody has uneasy feelings sometimes.

Q. You don't know whether that sound from that shot came through the pillar or came back and struck the other rib, and came back and sounded to you in those next places, or how it got there?

A. No, sir.

Q. As a matter of fact were you uneasy at the time that shot went off?

A. I was a little uneasy all the morning. I had an uneasy feeling and I talked to my men about it.

Q. Had there been any shots fired off before that?

A. That is the only shot I heard.

Q. And you were naturally uneasy and scared previous to the time that shot went off?

A. I was uneasy, and when that shot went off it made me a little more so.

Q. You were already scared?

A. I don't say I was scared; but I was uneasy.

Q. And when this shot went off it excited you?

A. I couldn't tell whether it excited me or not; it didn't seem to excite me.

Q. But it sounded unnatural?

A. Yes, sir; it was unnatural.

Q. As I understand you, now, you had seen this keg of powder that you spoke of, and the three cans of powder?

A. No, sir; I said I saw several half gallon cans of powder and a flask of something.

Q. Did you examine these half gallon flasks?

A. I did not.

Q. Did you examine this keg?

A. I did.

Q. Was the keg stopped up?

A. Yes, sir; there was a paper stopper in it.

Q. And you shook it, you say?

A. Yes, sir.

Q. Now, Mr. Byrd, how was the air that morning where you were working?

A. It seemed heavy in them places.

Q. Was this air any heavier, or any more dim at that time, than it had been any days previous to that?

A. I don't say as it was.

Q. You had worked in that same part of the mine before that, hadn't you?

A. I don't remember, but I think I laid a parting just this side of that, but I don't remember being down in that part for some time.

Q. Hadn't you been in that part of the mine before?

A. I had been in that part of the mines probably, but I don't remember working down in that far.

Q. The place you were working was near the head of the entry, wasn't it?

A. No, sir; it was a right smart piece from the head of the entry.

Q. How far?

A. I couldn't tell; probably two or three hundred feet.

Q. When was the last time you were in that place, previous to this day?

A. It had been several days; I just couldn't call the days.

Q. What was the condition of the air on that day when you were in there previous to this last time?

A. Good.

Q. Was it any better than it was this morning that you refer to?

A. I don't know that it was; the air seemed to be perfectly good on the entries.

Q. How was it where you were working?

A. The air seemed to be a little heavy in them places where I was working—in them two places. That was the only place I did any work up there.

Q. Did the air seem as if there had been any shooting previous to your going in there?

A. It did.

Q. It looked smoky, did it?

A. It looked dim.

Q. Did it smell as if it was powder smoke?

A. No, sir.

Q. It did not?

A. No, sir.

Q. What did it look like?

A. The air was a kinder grayish looking color, and the light looked very red in places.

Q. And you say you couldn't discern, or couldn't distinguish any difference between the air this morning and the air the morning you had been down there, previous to this time?

A. No, not down on the entry; I had never been in those places before.

Q. You had gone up in those places that morning?

A. Yes, sir; that was the first time I was in those two places.

Q. Then you don't know the condition of the air in those places, previous to that time?

A. No, sir; but the air on the entry was good.

Q. What place have you reference to now?

A. That I laid track in?

Q. Yes, sir.

A. I couldn't tell you; it was the two left hand places. Some of these men who are acquainted with it can show you, I suppose.

Q. How far from the entry was it, where you were doing this work.

A. I couldn't tell you.

Q. Have you any idea?

A. It seems to me like it must have been a couple of hundred feet.

Q. Mr. Byrd, you seem to be somewhat excited and I want to get your evidence straight, if I can. Was there any other reason that occurred to you on the outside of the mine—or in any other way—that caused you to be uneasy on this particular day?

A. I couldn't tell; I had an uneasy feeling from the time I left home that morning.

Q. What time did you leave home?

A. Half past six.

Q. Were you at any place the night before?

A. No, sir.

Q. After you quit work the night before the explosion where did you go?

A. I went home.

Q. Did you leave your home after that?

A. No, sir.

Q. What time did you go to bed?

A. About 8 o'clock.

Q. It was your business to work all over the mine, wasn't it?

A. Yes, sir; anywhere they sent me.

Q. In working around the mine was there any difference in this place that you have reference to now, and other places that you have worked in over the mine?

A. No; none as I could tell.

Q. Then the air in this place was of a similar character, to what it was in the balance of the mine that you worked in, off the main entry?

A. On the main entry it was. It was just those two places that I was speaking of, that it seemed to be heavy.

Q. But whenever you were sent to work in a room or breakthrough or entry off from the main workings, or main air way, I want to know whether the air in these two particular places was any different from the places that you would go to, of a similar character in the balance of the mine?

A. The air was good everywhere I went in the mine; everywhere I worked the air seemed good, very good.

Q. Except in those two places?

A. Yes, sir; it just seemed heavy. Of course it might have been my feeling uneasy—paying attention to them in those two places.

Q. I understood you to say a little while ago that the air in these two places that you have reference to now was of a similar character to the air in any other part of the mine, under the same conditions; that is, for instance, whenever you were working on 9 or 10, or any other entry, and you went in the places that were newly turned—that was probably fifty, sixty, seventy-five or one hundred feet from the entry to lay track—that the air in those places was of a similar character to the air that you had been in on the morning of the explosion. Now, is that right?

A. No; I said that the air in these two places seemed a little heavier than the other places that I had been in.

Q. That morning?

A. Yes, sir.

Q. But you hadn't been in any other tight places that morning?

A. These were the only two places that I had been in.

Q. The questions I want to know now, is, in going over the balance of the mine—in other parts of the mine that you were directed to go in, laying track, or working—whether or not the air in this particular place that you have reference to now—for instance, probably a week before that—you had worked on another entry, and under similar conditions, the same conditions rather, but off the entry sixty or seventy or one hundred feet; now, what I want to know is, whether there was any difference in one of those places, so far as the air is



concerned, than it was in these two places you have reference to now, where you were working off the entry?

A. Probably it wasn't; the air was the same in some of the places.

Q. Now, answer this question: Mr. Byrd, in all parts of the mine where you have been working, in this mine, did the air seem, or is it any more, under the same conditions, that is in front of the air and behind the air and on the air-way?

A. Principally the same conditions.

Q. Principally the same all over the mine?

A. Yes, sir.

Q. And it was just the same in these two places that morning as it is over the balance of the mine?

A. No, sir; I said it was a little tighter in these two places—a little heavier.

Q. That is where Big George was working?

A. They were two of his men.

Q. You say you don't know whether they were doing any shooting previous to your going in there or not?

A. I couldn't tell. It was a little smoky, the same as if there had been some shots fired.

Q. It did seem so?

A. Yes, sir; but still I couldn't tell; it was just smoky.

Q. How long have you worked in mines?

A. I have worked in mines about sixteen years, I guess.

Q. I wish you would tell the jury whether or not you believed there had been shooting going on in there that morning or not?

A. It seemed like there had been shooting going on in there that morning.

Q. Every indication was—from the conditions in there, that there had been shooting going on in that mine that morning?

A. There was indications that there had been shooting going on.

Q. It is natural to suppose that is the reason why the air was heavy, then?

A. Probably it was.

Q. Down there on the entry was the air traveling in its natural course, or not?

A. It was traveling in its natural course on the main entries.

Q. Were there any brattices, or doors, or anything of that kind torn down, to your knowledge?

A. None to my knowledge.

Q. Did you see in any part of the mine, the day previous to that, any doors left open or any brattices torn down, that were not replaced in due time?

A. I don't believe I did; I don't remember.

Q. Then the doors and brattices were all right, so far as you know, at this particular time?

A. So far as I paid any attention they were all right.

Q. And the air was traveling by these two places you spoke of?

A. Yes, sir.

Q. A good current of air?

A. Yes, sir.

Q. The entry was clear, was it?

A. Yes, sir.

By District Inspector Phillips: Q. When you shook that keg you believed it to be powder, didn't you?

A. I thought it was powder; yes, sir.

Q. Were the men in the habit of carrying kegs of powder in the mine?

A. That is the first one I seen in the mines.

Q. When you left that place you said there were three shots fired shortly before you left there. Wasn't there considerable smoke along the entrance when you left there?

A. No, sir.

Q. It had cleared up?

A. I don't suppose it had time to get to the entries, because I came right out immediately after it was fired.

Q. Do you know whether any of the men down in that section were using kerosene oil?

A. No, sir; I do not.

Q. Do you think if they were using kerosene oil there, that that would account for the heavy atmosphere in those two places?

A. Yes, sir; that would make the condition of the atmosphere, if they were using it?

Q. The condition of the atmosphere was something similar to what it would have been like if they had been using kerosene?

A. Yes, sir.

By Mine Inspector Laing: Q. Had you ever seen a blown-out shot in this mine?

A. I never have.

Q. And you have never seen or heard of anyone being burned from a blown-out shot, or from smoke, or from gas in the mine?

A. Not in this mine; no, sir.

Q. You never heard of it?

A. No, sir.

By Judge Holt: Q. Did you report the finding of this keg to Mr. Jones, or the foreman of the mine?

A. I had no chance to report it; I hadn't seen them.

Q. Was anything said to any of the men by you in the room about the keg of powder?

A. No; but I told these track helpers of mine to be careful in going by there. We ate dinner something near the place.

Q. And you didn't say anything to the men who had it there?

A. No, sir.

J. P. HAIRSTON, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of J. P. Hairston.

Examination by Judge Holt:

Q. Give the stenographer your full name?

A. J. P. Hairston.

Q. Where do you live?

A. At Lick Branch.

Q. In McDowell county?

A. Yes, sir.

Q. What is your business?

A. Mining.

Q. How long have you been mining?

A. About twenty-five or thirty years.

Q. Were you in that mine on the day of the explosion?

A. Yes, sir; I was in the new main part.

Q. What time in the morning did you go in the mine?

A. About half past seven, or between that and eight o'clock.

Q. Were you there at the time of the explosion?

A. Yes, sir; I was on my way out and was overtaken by it.

Q. In what condition did you find the air that morning when you went in there?

A. As far as I went I found it as usual; the air was very good.

Q. You found very good air?

A. Yes, sir.

Q. What were you doing at the time of the explosion?

A. I was walking out—coming on out.

Q. At what point in the mine were you when you were overtaken by it?

A. I was about fifty yards, I reckon, from the daylight hole here on this new main entry.

Q. What was your experience? What did you see, if anything, or feel or hear, if anything?

A. I had just come through the last door, coming out, and Mr. Yates was keeping the door the old man. He was sitting behind the door, on the opening, on the side to protect him, and I got by him, and passed the place there, rather near the third parting that goes in from the door, and I heard a noise, like a roaring, and I heard the door when it slammed, and about that time it knocked me over, next to the rib; it knocked me and throwed me clear out, and I took to running, and as I made one step, it caught the other foot before I could step again and knocked me over, and I laid over next to the rib, as I had always heard that the best to do was to lie down next to the rib in explosions, and I just laid in that position.

Q. What was the noise like that you heard?

A. Just kinder roaring.

Q. Like wind?

A. Yes, sir.

Q. Did you feel the air?

A. Yes, sir; after a little while.

Q. Was it cold or hot?

A. It was cool air that struck me there.

Q. Did it ever get hot?

A. I didn't stay there long enough to see. When I could see the daylight hole, I was right out as soon as I seen the hole again.

Q. What had you been doing in there that day?

A. During the morning, after I had gotten in there, Mr. Cleve Bowers and them—they were up there and told me I had 3 entry. I had drove the curve from the main S, and there was an air course following my entry, and an air course following the curve, and I went back to clean up a car of coal that I had there in the curve head, to give it to another man, so he could work that day. They come up there and asked me to do that. I had more places then than I could really manage, as I had no one with me at that time, and I went up there to clean the coal up.

Q. Did you see any flashes or fire while you were in there?

A. No, sir; not any at all. There was two or three shots made by those fellows that taken those places, but I never made but one little pop, and it was not nothing to talk about; not over seven or eight inches of powder.

Q. What time was that shot fired by you?

A. I reckon nearly nine o'clock.

Q. How long before the explosion occurred?

A. It was about half past, or something after two. The tracklayer told me it was five minutes to two when I was putting on my clothes to come out, and I kept on walking, and it overtook me, and it was nealy three o'clock when I got to the house; I think it was about 2:30 when it happened.

Q. Did you see anything wrong in that mine that day, while you were in there?

A. Nothing more than previous to the explosion.

Q. In what part of the mine were you working?

A. I was working in the main heading on the new works, which is rather called, I think, the S heading on new main.

Q. How far were you from Italy?

A. I was a pretty good ways from that from Italy.

Q. Who was working with you?

A. I had no one working with me. A fellow came out with me, named Gus Dillard, I think they call him; he came out with me when I left that place.

By Mine Inspector Laing: Q. What is your name?

A. J. P. Hairston.

Q. How long have you been here?

A. Between eight and nine years.

Q. In this mine?

A. Yes, sir; in this heading.

Q. In this same heading?

A. Yes, sir; I think they drove thirty-one rooms, and they put me on the back part of it, and it is S yet.

Q. You say you were driving S heading?

A. Yes, sir.

Q. How many places were you working in there?

A. None but S; and I had turned off all the other places from the main entry; I make them sometimes forty-one feet from the main entry, before I quit them.

Q. Forty-one feet?

A. Yes, sir.

Q. Were you driving the parallel to S?

A. The air-course?

Q. Yes?

A. Yes, sir.

Q. And you say you have been driving that entry for eight years?

A. Yes, sir; close on eight or nine years. I have done all my work in that entry.

Q. How wide is the entry?

A. My entry work is not anything over  $11\frac{1}{2}$  to 12. I don't think I got it anywhere else more than that.

Q. Is your place a machine mined place or do you mine it with picks?

A. No, sir; I mine mine from the shoulder with muscle.

Q. Where do you mine it—in the top or in the middle or on the bottom?

A. No, sir; at the bottom.

Q. How deep do you make your cut?

A. From five to six feet; but sometimes I may go a little further, near seven or six and one-half, but always generally about five feet.

Q. How thick is the seam of coal?

A. I reckon my coal—sometimes it changes, in entry work; sometimes it is seven and one-half and eight and nearly nine. It was nearly nine feet.

Q. After you have made your cut how do you shoot your coal down?

A. That is what I want to show you as near as I can. I get back something close to this place and bore my auger, and put in a cartridge and shoot that, and then if this rib is laying furthest back after I break it, then I will shoot this rib here, or whichever rib I chose after I load that out of my way. I need all the room I can get, you know, and I never pile my coal up except I am going out; I will shoot one shot before I go out, after I have the cut dug, and leave it until next morning.

Q. And then after you shoot that heaving shot, as you call it, to-night, you will not shoot any more shots in there until morning?

A. No, sir.

Q. And not until after you have loaded that coal up?

A. Yes, sir.

Q. And how many shots do you say it will take to shoot down the whole place there?

A. Sometimes after shooting this shot—this heaving shot here—if you put your auger near about to that rib—about six inches of that rib—sometimes it will pull every bit of it there and I will only shoot two shots in that place.

Q. How do you square your rib?

A. I square my rib by judgment and that shot. I may after that drop my ear near to that rib and knock the other down with the pick. I don't do that all the time but very often I do that.

Q. How much powder do you have to use in that middle hole to shoot that coal down—that breaking shot?

A. In that place I used about ten or twelve inches of powder.

Q. Your breaking shot?

- A. Yes, sir; and a heap of times I don't use that much.
- Q. How far from the top does that hole go from the time you start it?
- A. My auger hole?
- Q. Yes.
- A. I aim to put it about six or seven inches. I bore to my sulphur band.
- Q. Then you endeavor to reach to the sulphur band?
- A. Yes, sir; and then I stop boring.
- Q. And then you put in a ten-inch cartridge?
- A. Yes, sir; and I wish you to understand me again; sometimes in digging this coal—sometimes my coal works very well and it don't take a heavy cartridge to pull it.
- Q. How thick is that cartridge?
- A. That cartridge is something like one and one-fourth inches the depth of it through.
- Q. Show on that pencil what you think an inch and a quarter is?
- A. Just about like that, (Indicating).
- Q. That would be right straight through it?
- A. Yes, sir; something like that.
- Q. How much powder do you take in the mine with you in the morning.
- A. Half a gallon.
- Q. How long does that last?
- A. For a day; and sometimes I have some coal left from shooting it; it mines me about between four and five cars.
- Q. How many cans of powder do you get out of a keg?
- A. I get sometimes four cans and nearly another one.
- Q. Practically five cans?
- A. Sometimes I do. Sometimes I get a little more than others; I get nearly five cans; and then again I won't get more than four cans, and about a pint or a quart; it runs like that.
- Q. How many men do you work with—that you use a can of powder a day?
- A. Half a gallon a day do you mean?
- Q. Yes.
- A. I don't work anybody but myself.
- Q. I thought you had some men working for you?
- A. No, sir.
- Q. You say that this can of powder that you take in usually lasts you a day?
- A. Yes, sir; that is all I carry.
- Q. How much powder do you put in these side holes?
- A. It depends on what amount of coal I have before me. I have judgment as long as I have been using it; I don't tear the coal all to pieces; I have just enough to knock it down in front of me, and I have a narrow place and I don't overshoot it. If I have a lot to shoot in front of me I use maybe seven or eight inches.
- Q. Did you ever shoot any coal off the solid?
- A. No, sir; not a pound, now.
- Q. What do you mean by "now"?
- A. I mean by now—I haven't done it since I have had orders not to do so.
- Q. Who gave you orders not to do so?
- A. The bank boss; he gave me a mine book of instructions, as to what I should do.
- Q. Did you read it?
- A. Yes, sir.
- Q. And you haven't shot any off the solid since?
- A. No, sir.
- Q. Who was the mine boss that gave you that book?
- A. He has gone now; he is over here in Sand Lick; Mr. Lilly, I think it was.
- Q. How long has it been since you shot off the solid?
- A. It has been, I reckon, near two or three years since I shot my solid shots.
- Q. Do you find your work easier when you shoot off the solid, or mining the coal?
- A. It easier to me to mine it.

- Q. You don't know how many cartridges you get from a can of powder?
- A. No, sir; I couldn't tell exactly, because I shoot half a cartridge, and sometimes you may say just as good seven or eight inches, like I shot the last day I have been speaking about.
- Q. And you say you have been working here eight years?
- A. Yes, sir.
- Q. And during that time have you ever lighted the smoke from shots when you go back to them?
- A. No, sir; I never go back that soon. I go down the entry next to me—next to my breakthrough—and stand and look at them go off, and I never go back for a while.
- Q. Do they ever make any flame when they go off?
- A. Sometimes they do.
- Q. How much of a flame?
- A. I couldn't say just how much, but it will make some flame; sometimes, just sparks.
- Q. Does it shoot back any?
- A. No, sir; not any back shots.
- Q. Have you ever known of the smoke being lighted in this mine?
- A. No, sir.
- Q. Have you ever known of men being burned in this mine?
- A. No, sir.
- Q. Have you ever heard of it?
- A. No, sir; not by powder or smoke before.
- Q. How was the air in the mine, where you have been in?
- A. Where I am working in this new main the air is very good. It is not smoky, and the air is not so powerful rushing, up in the parts I am driving, and you can always say the air is very good.
- Q. Have you ever heard of anyone complaining about the air in this mine?
- A. No, sir; I never heard of any complaints at all.

HENRY WALKER, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Henry Walker.

Examination by Judge Holt:

- Q. Where do you live?
- A. At Switchback, West Virginia.
- Q. What do you do for a living?
- A. Digs coal.
- Q. In what mine have you been working?
- A. I ain't been here but a month.
- Q. Where have you worked during that month?
- A. The first two weeks that I worked, I worked in Delta.
- Q. Where the last two weeks?
- A. In Lick Branch.
- Q. Were you digging coal there?
- A. Yes, sir.
- Q. In what part of the mine were you at work?
- A. I was working on 9 entry—on the old main, they call it.
- Q. At what point on 9 entry?
- A. I worked in 23 room; it wasn't no room; they had taken the pillars.
- Q. You were in the robbing place?
- A. Yes, sir.
- Q. Were you in there on the day of the explosion?
- A. Yes, sir.

Q. I wish you would turn there now and tell the justice and jury just what happened, in your own way and as quickly as possible, as it is getting late.

A. I was in there. I had loaded a car and me and my buddy was going to load one car more and come out, and I was sitting down eating a snack, and I was sitting there right on the corner of the coal, right next to the entry, and while we were sitting there this wind—it looked like a hard storm, looked like to me—came over and there was a lot of dust and stuff in it. It came over and knocked me and my buddy both down, and then after this when the wind came over it seemed like it was right hot—I know it was a heap warmer than the first breeze—and then I aimed to get under the car myself. I knowed the car was right close, and when I was trying to find the car my buddy he gets out from me somehow—I lost my buddy—and after I didn't find my buddy, I got under the car and looked around, and I could hear somebody going down the entry and I called my buddy and he answered, and I moved on behind my buddy, as I didn't want to be up there by myself, and I went on and struck out for the entry, and then I went on down the entry, and there was about three of us together. One fellow passed me with an axe and he knocked down some place where we all were and we were all going down the entry and all wanted to go down to the parting to catch the motor, as they thought they would go to the parting and there might be a motor and we could catch the motor and come out. Then we goes down on the entry a little piece, and when I goes down on the entry it kept getting a little hotter all the time and I got so I couldn't hardly speak, and I said to my buddy I can't make it no further; I will have to go back; and he said, "No, Henry, come on, let's go to the parting;" and he said "this is the right way to go," and I said, "No, I don't want to be by myself, but I will have to go back the other way, because I cannot follow you boys. I believe I can get the air better going back the other way", and my buddy said, "Well, if nothing else will do you but what you must go back the other way I will go back that way with you." Then we felt our way along up the entry, as there was no light or anything; it was just dark and we couldn't see anything; we were just feeling; and I goes up a little piece, and I gives out, and I lay there awhile right close down, and then I got so I could travel again, and then I commenced moving again. I left my buddy somewhere on the entry, and I goes on until I strike air, I goes to the slate fall first, and when I got up there the slate commenced falling right in front of me, and I saw I was going right up in the fall, and I said, "that won't do to go up in there," and I knowed I would get killed up in there, "and I will just stay here. I don't know the way out nohow." And I just stopped there; and I got so I could talk a little bit. By that slate falling it seemed like it gave me a little air, and when I got so I could talk again I called my buddy and he answered me and said, "Buddy, I found a little air," and he said "Please stay there until I get there;" and there was another fellow with him, and they both comes up to me, and we got there and we all laid down there together right on the ground until we got so we could travel; and I ate he wanted to light a light, and my buddy didn't want to do it, because my buddy had two matches, and I didn't have any, but he had a lamp, and I kept telling this fellow not to light it because it was hot now. We staid there I reckon about twenty minutes then lying down, and he struck a match, and after he struck a match, something it looked like to me about this high, (indicating) and all over that was right white looking stuff, and after awhile we struck a light and held it on the ground and we commenced going out then, and it wasn't no time then before we got out.

Q. What entry did you come out at?

A. I came out from—I don't know— because I ain't been working there long enough to know.

Q. Did you meet anybody coming in, on the way out?

A. Yes, sir; about two or three fellows.

Q. Were they white or colored people?

A. White people.

Q. Do you know Mr. Stowe?

A. No, sir.

Q. Do you know Mr. Atkinson?

A. No, sir.

Q. Nobody helped you out?

A. No, sir; there didn't anybody help me out at all.

Q. At the time this disturbance occurred that first caught you, it was a rush of wind, as I understand you?

A. Yes, sir.

Q. Did you hear any noise?

A. Yes, sir; it just come over like that (Indicating).

Q. Did you see any fire?

A. No, sir; I never seen no fire at all.

Q. Who all came out with you?

A. Taylor Staples and Pete Hippenstall.

Q. Was there anybody else with you?

A. No, sir; there was another fellow laying about ten or fifteen feet, or something like that from us, and he was hollering and begging us to carry him out with us, and we asked him could he walk, and he said no, and we told him we couldn't carry him, but we would send somebody back after him.

Q. Do you know who that was?

A. He was a new man, and his name was John something, that is all I know.

Q. Did he get out?

A. Yes, sir; they went and got him out.

Q. Did they get him out alive?

A. Yes, sir.

Q. Had you been doing any shooting that day?

A. We shot one shot.

Q. Were you in the robbing places?

A. Yes, sir; just starting a pocket, we had just taken the stump the day before, and that morning we come in we had a little more coal to take out—maybe three or four loads, or something like that—and when we got in next morning it had fell in.

Q. How was the air in that mine when you went in that morning?

A. It seemed like to me it was all right; I didn't see anything wrong with it.

Q. Did you see anything wrong with the mine?

A. No, sir.

By District Inspector Phillips: Q. What place did you work in?

A. You mean what entry?

Q. What room and what entry?

A. I worked in number 23 room and on 9 entry.

Q. Did you shoot your coal from the solid?

A. No, sir; you see it was pillar coal, and we don't have to do anything but just pull out the bottom and sometimes we shoot a little light pop; sometimes something like that, at the top.

By Mine Inspector Laing: Q. You said you were going to get under the car: Did this wave put your light out?

A. Yes, sir; and I ain't never seen my lamp yet, or cap.

Q. You said awhile ago that you came back to the entry and you saw a man going down the entry with an axe?

A. Yes, sir.

Q. Did he have a light?

A. No, sir; this here was before this thing happened—that is, when we were all setting there.

Q. You didn't see anybody afterwards?

A. No, sir; I could hear them but I couldn't see them.

Q. You didn't see any flame or light?

A. No, sir.



TAYLOR STAPLES, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Taylor Staples.

Examination by Judge Holt:

Q. Where do you live?

A. At Switchback, West Virginia.

Q. How long have you lived here?

A. About nine years.

Q. What do you do for a living?

A. Mine coal.

Q. In which of these mines about here have you been mining coal recently?

A. Lick Branch.

Q. Were you in that mine on the day of the explosion?

A. Yes, sir.

Q. At what hour in the morning did you enter the mine?

A. I went in that morning—it was eight o'clock before I went in.

Q. At what part of the mine were you working?

A. On 9 entry.

Q. At what point on 9 entry?

A. Twenty-three pillars.

Q. Then you were robbing pillars, were you?

A. Yes, sir.

Q. Were you there at the time of the explosion?

A. Yes, sir.

Q. Turn to the court and jury and tell them all you know about the thing—when that explosion came, and what you felt and what you saw and did, if anything?

A. All I know, is, that first it seemed like a heavy wind came over us, and the wind was blowing pretty hard, and it made a lot of noise, and I started to get out. I had been sitting down eating, and just as I started it seemed to get heavier, and it throwed me over, and I caught on to something and laid down there in the track as close as I could to the ground, and after I found the heat began to get warmer and warmer, and I thought then it was an explosion, and I just laid there. I could see nothing.

Q. Did you hear anything?

A. Yes, sir; I heard a roaring.

Q. What was roaring—the wind?

A. It seems like it was.

Q. Was anybody with you?

A. Yes, sir; my buddy.

Q. Who was that?

A. Henry Waller.

Q. Is that the man who has testified here, and who has just left the witness stand?

A. Yes, sir.

Q. What did you do then?

A. We laid there until it seemed not to be blowing so rapid, and then there was another man below us hollering for me to come there and bring him a light, and I told him I didn't have any light, and he said just come here anyhow, and I went down there, and then he said, "Let's go this way towards the parting;" and so finally I hollered to my buddy, "Let's go to the parting;" and he said, "Don't go that way; let's go this way;" and I thought they knowed more than me, and we got down that way and it got hotter as we went, and I got tangled up with some fellows that were holding me, and carrying me on, and I hollered to my buddy to help me get loose from them, and he got ahead of me by them fellows wrestling with me, and then he told me he found good air where there was some slate, so I got up pretty close to him, and there was another man and he had a lamp and I had a couple of matches, and he kept after me to let him

strike one, and it was a long time before I would let him do it. We rested there a good while and then after that we struck it and I seen we were up next to a fall there about 28, and saw we could get out from there—I knowed the way then—and we could see right down at the bottom, and we crawled along and I showed him the way to come out, then.

Q. Did anybody help you out?

A. No, sir.

Q. How was the air in that mine on that morning when you went in?

A. It seemed like it was as good as it ever was to me; I couldn't tell no difference.

Q. Did you shoot any coal in there that day?

A. We shot one shot.

Q. What was that on?

A. On the pillar.

Q. At the time this wind storm or explosion came, did you hear any sound?

A. All I know is I just heard a roaring, and it was over me by the time I heard it, pretty much. There wasn't enough for me to tell there was anything before it got there; it seems like it was roaring and it was all over me in a little while.

Q. Did you see any fire or flame?

A. Not a bit.

Q. How long have you been working in that mine?

A. Nine years.

Q. In shooting coal have you shot from the solid?

A. Never any time.

Q. Did you ever have any directions from the company or boss not to do it?

A. Yes, sir.

Q. Who was the boss who gave you the instructions not to do that?

A. I don't know whether I remember exactly the boss, or who he was that gave me instructions. I believe it was Mr. Holladay; I think he was the bank boss.

Q. Where is Mr. Holliday now?

A. I don't know.

Q. Have you any idea how long ago that has been?

A. No, sir; I don't just know. I didn't work hard coal much; I always been working on pillars. I worked on them as long as they had any here.

Q. Did you ever discover any gas in that mine?

A. Not to my knowing; if I did I didn't know it.

By District Inspector Phillips: Q. You didn't do much shooting on the pillars after you got the first break, did you?

A. No, sir; not very much then; it didn't take so much shooting.

Q. You shoot a little when you are heading through?

A. Yes, sir.

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JOHN SMITH, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of John Smith.

Examination by Judge Holt:

Q. Where do you live?

A. Shamokin Hill.

Q. Where do you work?

A. Switchback.

Q. What do you do?

A. Run a motor.

Q. In what mine?

A. Lick Branch.

- Q. How long have you been running a motor there?  
A. Since Friday.  
Q. Where had you been working before?  
A. Shamokin.  
Q. In the coal mine?  
A. Yes, sir; at Maybeury, over here.  
Q. Were you in the Lick Branch mine on the day of the explosion?  
A. Yes, sir.  
Q. Where were you at the time of the explosion?  
A. At the lower end of the run-around.  
Q. How far was that from the driftmouth?  
A. One hundred feet.  
Q. Had you been in any other part of the mine that day?  
A. Yes, sir.  
Q. What part?  
A. Italy, and on 11, 10 and 9.  
Q. What were you doing over there?  
A. After a trip of cars.  
Q. Bringing coal out to the run-around?  
A. Yes, sir.  
Q. How long before the explosion came was it that you left Italy?  
A. I couldn't tell you.  
Q. About how long?  
A. I don't know exactly what time it was when I was up there after one trip; it was in the morning though, sometime.  
Q. What did you do after leaving Italy?  
A. I went back out and took another trip on 11.  
Q. And then from No. 11 to where?  
A. To 10.  
Q. And then from number 10 to where?  
A. To 9.  
Q. And then from nine to where?  
A. Back to 10.  
Q. Then what did you do?  
A. I went back outside to the run-around.  
Q. And you were at the run-around when the explosion occurred?  
A. Yes, sir.  
Q. What was your experience? What did you see or hear, if anything?  
A. I heard nothing.  
Q. Did you go out of the mine?  
A. You mean at the time of the explosion?  
Q. Yes, sir.  
A. I just heard some wind.  
Q. Did you feel any?  
A. Yes, sir.  
Q. Was it hot or cold?  
A. Sorter cold.  
Q. What did you do then?  
A. I run.  
Q. Did you run back into Italy?  
A. No, sir; I run back outside.  
By Mine Inspector Laing: Q. You say you were in Italy that morning?  
A. Yes, sir.  
Q. Did you hear any loud blasting, or anything of that kind, when you were down there?  
A. No, sir.  
Q. Did you hear any blasting at all?  
A. No, sir.  
Q. Was there anything unnatural with the ventilation, that you know of?  
A. No, sir.

Q. All the doors and so forth were in their usual position, as far as you know?

A. Yes, sir.

By District Inspector Phillips: Q. You didn't go down into the workings: you were just on the sidetrack?

A. Yes, sir.

Q. That is just at the place where it joins the old main?

A. Yes, sir.

Q. Just inside the point where it connects with the old main?

A. Yes, sir.

By Judge Holt: Q. How was the air in Italy when you were there?

A. It seemed pretty good where I was.

Q. How long were you there?

A. About ten minutes.

JOHN HENDRICKS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of John Hendricks.

Examination by Judge Holt:

Q. Where do you live?

A. Switchback, West Virginia.

Q. What do you do?

A. I am running a motor at the present time.

Q. In what mine?

A. Lick Branch.

Q. Were you in there on the day of the explosion?

A. Yes, sir.

Q. At what point?

A. On the round-around on the old main.

Q. What time did you go in the mine that morning?

A. I went in pretty early that morning—about half past seven; I went in the new main in the morning.

Q. What time did you come out?

A. I suppose I made my first trip about nine o'clock.

Q. I mean when did you come out for the day?

A. At the old part.

Q. I mean when did you come out?

A. About one o'clock.

Q. Did you go back in any more?

A. Yes, sir.

Q. How long did you stay?

A. I staid about until 12 o'clock, in the new side.

Q. In what parts of the mine were you that day?

A. New main, on 3, 5 and 8 up until 12 o'clock, and then they sent me to the old main.

Q. How long did you remain?

A. I was meeting the other motor on the run-around, and I made some three or four trips.

Q. You were there at the time of the explosion?

A. Yes, sir.

Q. At what point?

A. At the run-around.

Q. How did you find the air that day in that mine?

A. It was perfectly good—as good as I ever saw it.

Q. How long have you been working there?

A. I had been there the last time about five months.

Q. At what point were you when the explosion came?

A. On the run-around, old main, about 500 or 600 feet from the outside.

Q. What did you see and what was your experience, if anything, at that time?

A. I didn't see anything, much, except something like hail struck me, and a little warm breeze came, and the next thing was getting out; I don't know what happened then.

Q. You went out doors then, did you?

A. Yes, sir.

Q. Were you down in Italy that day?

A. No, sir.

Judge Holt: You can examine him, Mr. Laing, or any of you gentlemen, that desire to do so.

Mr. Laing: I don't care to.

LEWIS CHEATHAM, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Lewis Cheatham.

Examination by Judge Holt:

Q. Where do you live?

A. At Switchback.

Q. How long have you lived here?

A. About seven years, or a little better.

Q. What do you do?

A. Mine coal.

Q. How long have you been a miner of coal?

A. About twenty or twenty-one years.

Q. In what mine have you been recently at work?

A. Lick Branch.

Q. How long have you worked there?

A. A little better than seven years.

Q. What parts of that mine have you been in?

A. I was on 9 entry. I was pulling the chain pillar on 9 entry.

Q. Where were you at the time of the explosion?

A. I was pulling the chain pillar on 9 entry.

Q. What time did you go into the mines that morning?

A. About nine o'clock.

Q. How did you find the air?

A. My air was all right, it seemed to be.

Q. Did you find anything wrong with the mine at all?

A. No, sir; not where I went.

Q. What parts of the mine were you in that day?

A. I went in just straight to my place.

Q. Had you ever been in any other portions of the mine before that time?

A. Yes, sir.

Q. What portions?

A. I was on other entries, and all of them that I worked on was robbed out.

Q. Were you over in Italy at the time of the explosion?

A. No, sir; I never was over there.

Q. Where were you when the explosion came?

A. I was butting off 9 entry chain pillar.

Q. Did you ever shoot any coal from the solid in that mine?

A. I used to when I first started, but, since they passed that law, I haven't.

Q. Did you have any instructions from any of the foremen not to do it?

A. Yes, sir; since that time I have.

Q. Who gave you such orders?

A. I forget the name of the bank boss.

- Q. Is he here now?
- A. No, sir; he left here five or six months ago; he went to the hospital and then he never came back. Buchanan, I think his name was.
- Q. He gave you instructions not to do that?
- A. Yes, sir.
- Q. Have you ever done it since?
- A. No, sir.
- Q. Have you got a book of rules?
- A. Yes, sir; they gave me a book.
- Q. Can you read?
- A. Yes, sir.
- Q. Now, when this explosion came what effect, if any, did it have on you, and what did you do, and what was it like?
- A. It was just like a rush of wind—a hail storm—dust and small gravels and coal was hitting very severe and I laid down behind a car for protection.
- Q. Was there any noise?
- A. No, sir; not until I felt it.
- Q. Did you see any fire or flames?
- A. No, sir; I shut my eyes and laid my arms over my mouth and laid down behind the car.
- Q. Then what did you do?
- A. There was five of us together—four worked together and another man came through the breakthrough hollering for help—and we staid there until all got together, and I told the men not to get frightened—that the best thing we could do was to get together and get out of there, and I think we carried two, and the others made it pretty well.
- Q. Did you meet anybody when you came out?
- A. Not anyone.
- Q. Do you recollect the men who were with you?
- A. Yes, sir.
- Q. Who were they?
- A. Walter Martin and his buddy—I don't know his name—and Sam Ross, my buddy, and another fellow named Harris; they was all; and myself.
- Q. Did they all get out alive?
- A. Yes, sir.
- Q. Did you hear any blasting in there that day before you left?
- A. Yes, sir; some few places they were shooting, but they wasn't shooting very much. We all were on pillars; I was taking the stump, and I think I made two or three shots.
- Q. Did you discover any gas in the mine that day?
- A. No, sir.

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A. R. MILLER, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of A. R. Miller.

Examination by Judge Holt:

- Q. What is your business?
- A. Driver boss.
- Q. In what mine?
- A. Lick Branch.
- Q. How long have you been driver boss?
- A. Ever since the 15th of last July.
- Q. What are your duties as such?
- A. My duties is to look after the drivers and see the miners gets cars.
- Q. Were you in the mine on Tuesday last?
- A. Yes, sir.

- Q. Were you in there at the time of the explosion?
- A. Yes, sir.
- Q. What time did you enter the mine?
- A. That morning, you mean?
- Q. Yes, sir.
- A. About 7:20.
- Q. What parts of the mine—tell the court and jury—did you visit that day?
- A. I was in all the working places that day—all the entries.
- Q. Were you over in Italy?
- A. Yes, sir.
- Q. Tell us when you went in Italy, and what portions of Italy you visited, and what you saw, if anything, and give us the rooms, &c.
- A. I was in Italy in the morning about 9 o'clock and went from there to 10 entry, and from there to the new main, and then in the afternoon I went into the new main down to 9 entry, and back to the outside on the old main, and then back to 9 and from there to 10 and from there to Italy.
- Q. What time were you in Italy the last time?
- A. It was about two o'clock.
- Q. Now, tell us all, please, the condition you found the air in throughout that mine that day, if you recall?
- A. It seemed to be good.
- Q. Did you see anything wrong with the mine anywhere?
- A. No, sir.
- Q. That excited your fears or suspicions at all?
- A. No, sir; I did not.
- Q. How long did you remain in Italy?
- A. I wasn't in there over fifteen minutes the last time.
- Q. In whose room did you go while in Italy?
- A. I was in room 13 and 11 and 9.
- Q. And where did you go from there?
- A. I went back to the main entry on the parting.
- Q. Were you at the latter point when the explosion occurred?
- A. I was at the run-around.
- Q. What happened then and what experience did you have?
- A. There was a heavy wind, and slack blowing.
- Q. Hot or cold?
- A. First it was cool and then not; it kinder varied.
- Q. Did you hear any noises?
- A. No, sir.
- Q. Did you see any flames?
- A. No, sir.
- Q. Then what did you do?
- A. I started for the outside.
- Q. Did you visit any of the working places that day?
- A. Yes, sir.
- Q. What working places did you visit?
- A. Fifteen and 16 room on 112 in the air course.
- Q. Was that in Italy, or not?
- A. No, sir; that was in 112.
- Q. Did you visit any of the working places in Italy?
- A. Yes, sir.
- Q. Tell us what you saw, if anything, at any of those working places that you visited that day?
- A. I never saw anything that I paid any attention to.
- Q. Did you see anybody shooting off the solid at any of those points?
- A. I don't think I saw anybody shooting.
- Q. Did you see any shots at all fired that day?
- A. No, sir; I won't be positive, but I don't think I did.
- By District Inspector Phillips: Q. What time were you down in Italy the last time?
- A. Pretty close to 2 o'clock.

- Q. Did you go in No. 11 room.
- A. Yes, sir.
- Q. Did you notice that keg of powder in there?
- A. No, sir; I never saw it.
- Q. Were they preparing to shoot then?
- A. No, sir; I went back up in Italy to tell Mr. Byrd, the trackman, to go out and fix the guard rail, and Big George was fixing to go out and had his coat on, and I told him to go on loading coal and I would see if the driver could get him some cars; and he said he would.
- Q. What was the purpose of your visit there?
- A. To see if the drivers were getting in the cars. The mine foreman told me Big George wasn't getting any cars that day.
- Q. Did you notice anything wrong with the atmosphere?
- A. No, sir.
- Q. Were these workmen there at that time?
- A. Yes, sir; there was four of them. No, sir; two of them fixed the guard rail on the outside.
- Q. You didn't notice the atmosphere appeared as if they were using kerosene oil?
- A. No, sir; I did not.
- Q. If it had been murky you would have noticed it, wouldn't you?
- A. Yes, sir.
- Q. Did you act as assistant foreman?
- A. Yes, sir.
- Q. Is the ventilation good into the right of those last light headings in that dip, in Italy?
- A. It always has seemed good.
- Q. How is the air turned in there?
- A. We have doors there, you know, that turns it through there.
- Q. Where was the door?— Just inside there?
- A. Yes, sir; in that cross entry there.
- By Justice White: Q. If there had been any fire on the entry where Italy was, from where you were at the time could you have seen it?
- A. Any fire?
- Q. Yes, sir.
- A. There could have been in some places and I wouldn't have saw it; but if it had been in 11, 13 or 9, I would have seen it.
- Q. If there had been any blasting would you have heard or saw it?
- A. Yes, sir; if there had been any shooting there I would have seen it when I was in there.
- Q. I mean about the time this rush came, if there had been any shooting in there could you have seen the fire from it, do you think—if there had been any firing up there from where you were?
- A. If there had been any shooting I could have seen it, I think, or heard it, while I was in there, you understand.
- Q. I mean where you were when this rush of wind came in?
- A. You mean at the run-around?
- Q. Yes, sir.
- A. No, sir.
- Q. If there had been any you couldn't have seen it?
- A. No, sir.
- By District Inspector Phillips: Q. You said you assisted the mine foreman. What are your duties? What authority does he give you?
- A. He gives me authority to look after the company men.
- Q. You said you visited the places. What did you do and what were your duties?
- A. To place and replace miners.
- Q. Do you look after the breakthroughs?
- A. Yes, sir.
- Q. And see that they comply with the law?



A. Yes, sir; I try to.

Q. You have that authority. That is, you were directed to do so, weren't you, or have you been?

A. Mr. Bowers hasn't given me any orders very much since he has been on, but he has just come on.

Q. Were those your orders prior to his coming up there?

A. Mr. Atkinson gave me orders then, and I done anything they told me to do, and they generally told me in the morning what they wanted done and sent me to have it done.

By Mine Inspector Laing: Q. You say you were in 112 that morning about 2 o'clock?

A. No, sir; I was there that morning.

Q. 112 is right where Big George worked, isn't it?

A. No, sir; he worked in Italy.

Q. In what room?

A. He had all those places down there; he was a contractor.

Q. How many did he work?

A. From seven to nine.

Q. How did he get his powder in there to those men?

A. I guess he carried it in. I saw him carrying powder in those places.

Q. You never saw him carrying a keg?

A. No, sir.

Q. Did you see anybody else carrying a keg?

A. I have stopped some men with kegs of powder.

Q. Did you ever permit one to go in with one?

A. No, sir; I have stopped them going in with one.

Q. How recently?

A. I think it has been something like two months ago, but I never did stop George with one; I never saw him with one.

Q. If you were to see a man putting a shot on the solid, have you authority, or not, to stop him from shooting that shot, if you saw it?

A. If I seen him doing that I would stop him.

Q. Have you that authority from the mine foreman?

A. I haven't from this one; he hasn't told me yet.

By Judge Holt: Q. How long has he been here—this recent one?

A. I think he took charge last Monday morning.

By Mine Inspector Laing: Q. He has given you no instructions since he has been here?

A. Not to that effect.

Q. What instructions has he given since he has been here?

A. He hasn't given me very many yet.

Q. He hasn't given you very many yet?

A. No, sir.

Q. How do you proceed under his instructions, or to work under his authority, then?

A. I go ahead and work just like I have been doing—having the company work done, getting the mules out and drivers placed, you know.

Q. Has there been any understanding between you and the mine foreman as to what you should do and what you should not do?

A. Not particular.

Q. Then, as a matter of fact, you and the mine foreman haven't been working in harmony together since this new mine foreman has been here?

A. I do not understand your question.

Q. I beg your pardon; I thought the new foreman had been here a week.

A. No, sir; he came here last Monday or Tuesday.

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PETER HEPPENSTALL, a witness of lawful age, being first duly sworn, testified as follows:

## Testimony of Peter Heppenstall.

Examination by Judge Holt:

Q. Where do you live?

A. Here at Switchback, West Virginia.

Q. What do you do?

A. Dig coal.

Q. In what mine?

A. I have been working in Lick Branch all the time except three months, when I worked at Delta, and then went back.

Q. How long have you worked in Lick Branch?

A. I have been in there nearly twenty years.

Q. Have you been all over that mine?

A. Yes, sir.

Q. What did you do? Dig coal?

A. Yes, sir.

Q. Were you in there last Tuesday, on the day of the explosion?

A. Yes, sir.

Q. What part of the mine were you at work in?

A. I worked on 9 entry, 21 room.

Q. What were you doing? What kind of work were you doing?

A. I was loading coal. You mean what kind of work was I doing in there?

Q. Yes.

A. Loading coal.

Q. At what particular point were you when the explosion came?

A. I was down in my place busting up some lumps.

Q. Had you shot any coal that morning?

A. No, sir; I had made one little pop in the top fifteen or twenty minutes before it came—just popping down some top.

Q. Were you robbing that day?

A. Yes, sir; I robbed most all the time.

Q. How was the air in that mine that day?

A. The air was good.

Q. What was the first indication of that explosion that you saw, or heard?—What was the first you knew about the explosion in that mine?

A. I heard some kind of a noise and it deafened me.

Q. Then what?

A. Then some dust or little cinders, gravel or something commenced flying around, and I looked out and saw a few little sparks towards the mouth of the room.

Q. What did you do?

A. I dropped down beside the track.

Q. Then you went out, did you? How did you get out of the mine?

A. I crawled along on the rail out to the entry and when I got to that entry I had a match, and I didn't have but one match that would strike, (all of them were wet,) and when I got to the mouth of the entry, I crawled across on the opposite side and struck the match, and lit my lamp, and it wouldn't burn much, but I saw which way the air was coming and I crawled up on the rail and came on out.

Q. Where did you come out at?

A. I crawled up right up again 24 and begged another fellow for a match and struck the match and came out.

Q. Who came out with you?

A. Taylor Staples and his buddy; I forget his name; but Taylor Staples was the one I got the match from.

Q. Was that air hot or cold?

A. If you got up into it, it wasn't hot, but it was pretty warm; but if you staid right down on the bottom you could get pretty good air—by staying on the bottom—but if you got up it was warm.

Q. Had you heard any shooting in that mine before the explosion came?

A. No, sir; I don't remember hearing none. Them fellows might have put off

one or two little pops, but we didn't have to shoot much over there; I don't remember much shooting that day at all.

Q. Who was at the drift mouth when you came out?

A. Mr. Jones and Mr. Atkinson and the doctors.

Q. Did you meet anybody as you came out?

A. I met one man going on in with a safety lamp.

Q. Do you know who he was?

A. No, sir.

Q. Did anybody help you out?

A. No, sir.

Q. Did you see anything wrong in that mine that day when you went in?

A. No, sir; I never seen anything wrong in that mine.

Q. Did you see any shooting from the solid that day in there?

A. No, sir; I never saw any shooting at all.

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BRUCE MITCHELL, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Bruce Mitchell.

Examination by Judge Holt:

Q. Where do you live?

A. Switchback, West Virginia.

Mr. Laing: This witness's testimony will be simply a repetition of what the others have said and unless you wish to question the balance of them I don't see anything to be gained by it.

Judge Holt: Our only point was to bring everybody here who came out of the mine alive.

Mr. Laing: The only reason I say that, is, because each of these witnesses working at that point will be a repetition of the other witnesses.

Judge Holt: We do not desire to examine any more of them.

Mr. Laing: We would like to have Mr. Miller called back a minute.

Judge Holt: Do you want to ask this witness anything?

Mr. Laing: No, sir.

By Judge Holt: Q. Where did you work in the mine?

A. I broke on the motor.

Q. At what point in the mine were you when the explosion came?

A. I was on the run-around, about 200 yards from the mouth.

Q. And you came out without assistance?

A. Yes, sir.

Q. Did anybody come out with you?

A. Yes, sir; Mr. Henderson came in front of me. We were together, and both of us ran out; we were in the dark but we were pretty close together.

By Mr. Laing: Q. You were not more than a thousand feet from the driftmouth, were you?

A. No, sir.

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A. R. MILLER, being recalled for further examination, testified as follows:

### Testimony of A. R. Miller. Recalled.

Examination by Mr. Laing:

Q. Previous to this new mine foreman coming on, what were your duties under the old foreman that was here?

A. My duties was to look after the mules, and see after the mule drivers, and see that the miners got cars, and the company men.

Q. You had nothing to do with the ventilation?

A. No, sir.

Q. You had nothing to do with the shooting of the coal? I mean how the miners shot the coal?

A. No, sir; I did not.

Q. Had you anything to do with putting up the doors and brattices?

A. Very often, if I seen a door or brattice needed putting up, I would report it to the mine foreman that it needed to be done.

Q. Was it your duty to get material to such places, or not?

A. I don't know what about that.

Q. All I wanted to know was simply your duties under the old mine foreman, as to your jurisdiction and your authority: what duties devolved upon you and what he expected you to do in that mine. You can just relate it as you see fit.

A. He told me always when I seen anything needed to be done, either to have it done or report it to him at once.

Q. Do the men in the mine regard you as a foreman, and can you give them instructions, and do they do what you tell them to do?

A. Yes, sir.

Q. If you saw that material was needed to put brattices up, you had authority to get that material and have the brattice put up, did you?

A. Yes, sir.

Q. Then you didn't consider yourself responsible for the putting up of that brattice, did you?

A. No, sir.

Q. Then you simply did what you were told to do each day?

A. No, sir; I didn't mean to say he told me every day what he wanted me to do, but he gave me my orders may be a week apart. We would be talking and he would tell me what he wanted done, or what we must do or have done.

Q. When a door or brattice was put up in the mine, or a breakthrough was to be turned, who gave the orders for it to be done?

A. I would sometimes, myself; sometimes the mine foreman would, and sometimes me and him would be together and he would give the orders.

Q. Either one of you would give the orders and have them carried out?

A. Yes, sir.

Q. And you were, in a sense, the inside mine foreman?

A. I don't know; I wasn't the mine foreman; I was the driver boss.

Q. You had absolute charge of the drivers?

A. Yes, sir.

Q. That, then, was your jurisdiction, wasn't it?

A. I had charge of the drivers and the company men.

Q. What do you mean by company men?

A. I mean track-layers, and slate men and timber men, and men like that.

A. Then you didn't have instructions to turn any of the places, or to put up doors nor brattices without first consulting with the mine foreman?

A. No, sir; I never done a thing like that. If there was a place that I knew he hadn't given away, I would give that to the men.

Q. Without consulting him?

A. Yes, sir; it would always be all right with him.

Q. If any bratticing in the mine was to be done, or a door put in the mine, and the mine boss was not present, what would you do?

A. Have it put up.

Q. Did such a thing ever happen to you?

A. Yes, sir.

Q. How soon would you have it put up?

A. Just as soon as possible.

Q. Was it put up during that day, or left over until the next day?

A. I have had them put up the same day, and I had one torn down about 2 o'clock and had it put up that night.

Q. While you have been in there in your capacity, have you ever known of a

brattice or door to be torn down there during the day, that was allowed to go over to the next day, before it was replaced?

A. No, sir; I do not think I have.

Judge Holt: Now, gentlemen, there are more of these people here, and if you gentlemen want to examine them you can do so, but we do not care to. We also have the mine foreman, the inside mine foreman, and the superintendent of the mine, and if you gentlemen prefer we will have them called at this point.

Mr. Laing: Very well.

C. W. ATKINSON, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of C. W. Atkinson.

Examination by Judge Holt:

Q. What is your full name?

A. Charles W. Atkinson.

Q. Where do you reside?

A. At Maybeury.

Q. Where do you work?

A. I work for five operations of the Pocahontas Consolidated Collieries Company, incorporated, on Elkhorn, here.

Q. Have you anything to do with the Lick Branch mine, here?

A. I have.

Q. What is your present position at that mine?

A. I am the general mine foreman of the five operations.

Q. What are your duties in that connection?

A. My duties are to superintend the inside work generally.

Q. You are the inside foreman, then?

A. Yes, sir.

Q. Have you control over the miners?

A. Over the mine foreman and all his assistants, and the miners, if I see cause to change them or anything of the kind.

Q. Have you authority for that purpose?

A. Yes, sir.

Q. Were you here on the day of the explosion?

A. Yes, sir.

Q. Were you in that mine that day?

A. Yes, sir.

Q. What parts of the mine did you visit on that day before the explosion?

A. I visited the new main, S1 entry, 9 entry, Italy and 112.

Q. What time in the day did you visit the portions of the mine named by you?

A. Between the hours of 8 and 12 o'clock. I was going continually from about 8 o'clock until about 12.

Q. What did you do upon those visits?

A. I was making a general inspection and looking over the work generally.

Q. Did you visit the faces of the workings?

A. Yes, sir; part of them; not all.

Q. At what points?

A. Eighty-one heading; part of those rooms and part of the rooms on S2 entry; and the heading and air-course, and dip B entry heading and air-course, and part of the rooms.

Q. What was the condition of the air in that mine on that day?

A. I didn't notice anything wrong with it.

Q. Did you examine the fan?

A. The fan is examined every morning; that is the mine foreman's duty.

- Q. You didn't do it yourself that day?
- A. No, sir; I went in from this side—from the new main side.
- Q. Did you discover anybody shooting from the solid in there that day?
- A. No, sir; I did not.
- Q. Did you discover any gas in that mine that day?
- A. No, sir.
- Q. Did you take any measurements of the air?
- A. Not that day.
- Q. When did you take the measurements the last time?
- A. The mine foreman's last record is on December 7th. I have taken measurements since that time but I have no record of them. I often take the air measurement and keep no record of them.
- Q. When were the last measurements taken by you?
- A. I don't remember, but sometime since the 7th of December.
- Q. And this accident occurred on what day?
- A. On the 29th.
- Q. What did your measurements show, if you can recall?
- A. I remember that Mr. Bishop was with me at the mouth of the new main entry, and the measurement there was 31,000 feet, and something, going in, and on the other side of the mountain it was 28,000.
- Q. How did those measurements compare with the requirements of the law?
- A. It was plenty.
- Q. How many men did you have working in that mine at that time?
- A. I suppose about 100, including company men and miners.
- Q. How many cubic feet are required to the miner?
- A. One hundred cubic feet.
- Q. Now, upon the question of shooting or firing solid shots, what instructions have you ever given, if any, in that mine, with respect to that matter, either personally, or have you directed your foreman to give?
- A. I have directed the foremen in all the mines to stop all solid shooting so far as it was in their power to do.
- Q. You may state whether or not you have given any directions with respect to the carrying in of powder, and as to the quantities thereof?
- A. Yes, sir; I have.
- Q. What have these instructions been?
- A. No one man to carry in more than five pounds.
- Q. How long have you been connected with the Lick Branch mine?
- A. Since September 21st.
- Q. Of what year?
- A. Last year.
- Q. Has there been a state inspection of that mine since that time?
- A. No, sir; I believe not.
- Q. Do you recall when the last state inspection was made prior to that time?
- A. Sometime during the month of August, I would say. I noticed Mr. Phillips' report over there.
- Q. When did you go in the Lick Branch mine and become connected with it?
- A. On September 20th of last year.
- Q. Has there been any state inspection since that time?
- A. I believe not.
- Q. When did you say was the last state inspection?
- A. In August, 1908.
- Q. Have you got a copy of that report?
- A. Yes, sir; there is a copy of it posted over there.
- Q. You haven't a copy in your possession?
- A. No, sir; but it is posted there.
- Q. Who was the district inspector?
- A. Mr. Phillips.
- Q. Who is your foreman over there?
- A. At the present time, Mr. Bowers.
- Q. When did he go there?
- A. He has been there off and on since the 20th of December.

- Q. Where had he been at work prior to that time?  
A. At the Delta mine.  
Q. How long had he been at work at the Delta mine?  
A. I couldn't tell you. He was there when I came with the company.  
Q. When did you come with the company?  
A. September 20th.  
Q. What do you know of the experience of this foreman and as to how long he has been a miner?  
A. He has been a miner about all his life; he was raised in it.  
Q. Who was the foreman who preceded him at Lick Branch?  
A. A man by name of Pilkenton.  
Q. Where is he now?  
A. I don't know; he may be at home.  
Q. Where is his home?  
A. He lives down here in this bottom at Lick Branch.  
Q. Do you know what experience he had as a miner?  
A. Yes, sir; he had several years' experience, to my knowledge—that I know of.  
Q. Have you ever given directions with respect to shooting off the solid?  
A. I have instructed all the mine foremen not to allow it under any consideration.  
Q. Has the law been explained to the miners on that point?  
A. The miners receive a copy of the law when they are hired.  
Q. Have you a copy of the law?  
A. Not in my pocket; no, sir.  
Q. Have any rules been furnished by the company and by it to the miners?  
A. The rules are posted at the blacksmith shop and all the miners have to go there and they all see the rules.  
Q. Are the rules delivered to them at the time of their employment?  
A. We haven't delivered any rules, but we give them a copy of the law.  
Q. Are not the rules published with the law in the same book?  
A. No, sir; but the rules are made in compliance with the law.  
Q. Now, you may tell the court and jury what experience as a miner you have had, how long, and what character of work have you engaged in?  
A. I have been in mines since 1892.  
Q. That would be about sixteen or seventeen years?  
A. Yes, sir.  
Q. In what mines have you worked and in what capacity?  
A. I have worked as track-layer, miner, driving boss, assistant mine boss and mine boss.  
Q. In what mines have you worked?  
A. I have worked for this company at Norfolk.  
Q. Please give the names of the mines?  
A. Norfolk mines, Upland, Boothe-Bowen, Peerless, Shawnee, Arlington and Greenbrier.  
Q. How long have you lived in West Virginia?  
A. Since 1892.  
By District Inspector Phillips: Q. How often do you visit the mines?  
A. As often as possible. I stay in the mines all the time.  
Q. Give us about the average?  
A. About twice a week.  
Q. Each mine?  
A. Yes, sir.  
Q. When you go about the mines do you always observe whether the breakthroughs are cut the proper distance?  
A. I have instructed the mine foreman to always keep the breakthroughs up.  
Q. But do you see that yourself?  
A. Wherever I find they have not started them in compliance with the law I have done it.  
Q. You don't look after that particularly? You don't, when you go in the mine, see after that yourself and see that the law is being complied with?  
A. I try to see that the law is complied with in every respect.

Q. Now in this Little Italy: did you notice when you were down in there, that there was any breakthroughs that were beyond the distance required by law?

A. I think in number 11 room, isn't it? Possibly 11 room is beyond the requirements of the law, but there is a breakthrough working in the place.

Q. You didn't notice any other place?

A. And at dip B. The left heading as you go in on dip B is beyond the requirements of the law, but there is a breakthrough working in that also.

Q. You didn't use any brattice cloth?

A. The heading on the left side had been stopped. It was not worked at any more until the breakthrough was cut, and I also instructed the contractor personally to cut that breakthrough in and shoot his coal down when he was going out at night, and load it in the morning, and not to shoot and load it at the same time.

Q. And that was because he was so far in advance?

A. Yes, sir.

Q. This former mine foreman that you had: did you discharge him, or did he quit of his own accord?

A. He quit of his own accord.

Q. About the 20th of December?

A. Yes, sir: at that time his mother died and he got a telegram from his people that his mother was dead and he just resigned and went home.

Q. You said you had been up in number one off 11, and you had made an inspection of that the day of the explosion?

A. I was on 11 entry.

Q. Did you make an inspection that day of that?

A. Not in them rooms: only some on the upper end of the entry.

Q. Did you observe whether any cut-throughs were too far apart, or any places farther in advance of the air than the law permitted?

A. The heading was farther in advance of the air but that heading hadn't been working for sometime and the 16 room was beyond where it should be; but the same day this occurred we started a miner in the air course, cutting a breakthrough through.

Q. In Italy—those right hand entries, I think you call them B—the back entry to the right, how did you ventilate those?

A. We had a door across the main dip B entry.

Q. The air passed into the right first, or the left first?

A. Into the right first.

Q. And then through into the air course and up the main?

A. And down in the dip B heading; yes, sir.

Q. Did you notice whether those breakthroughs were close up between those two right entries?

A. Part of them was close up, the first ones were. I know.

Q. Next to the door?

A. Yes, sir.

By Judge Holt: Q. Where was the air brought into Italy—from the Tug River split?

A. Yes, sir.

By Mine Inspector Laing: Q. You stated the last time you took measurements of the air currents that you had 28,000 feet coming in from the Tug River side?

A. Yes, sir.

Q. And 37,000 feet coming in from this new main entry?

A. Thirty-one thousand feet.

Q. What did you have in Italy?

A. On the head of Italy we had 16,000 feet, is my recollection. I ain't no record of this. I was just taking these measurements myself. It is the duty of the mine foreman to take the air measurements, you understand.

Q. Do you remember anything that you had on the head of S entry?

A. About 27,000 feet; we hardly ever have less than that there.

Q. What is your jurisdiction? Have you got anything to do with the laying off of the mines?



A. Not particularly; the engineering department does that and we work to them.

Q. Whose duty is it to attend to the breakthroughs, doors and brattices in the mines and see that they are kept up?

A. It is the mine foreman's duty. It is his duty to do that and it is my duty to see that he does do it.

Q. Do you ever lay breakthroughs off yourself without his knowledge?

A. If I pass a place that is in too far, I will—I do, yes, sir; I have done that.

Q. Your position is general mine foreman?

A. Yes, sir.

Q. Then you have a mine foreman at each mine, do you?

A. Yes, sir; and each mine foreman has a driver boss.

By District Inspector Phillips: Q. Did you have a pillar boss?

A. No, sir.

Q. The boss driver looks after that, and the foreman?

A. Yes, sir; the boss driver and the mine foreman. There was very few pillars working.

Q. Do you have a mine foreman's record book?

A. What do you mean?

Q. A book that you keep your measurements in?

A. Yes, sir; we have that.

Q. Where do you keep it?

A. Over at the Lick Branch mine. Would you like to look at it?

Q. Yes, sir; I would like to see it.

Mr. Jones: We have it here to-day.

(Hands Mr. Phillips book.)

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CLEVE H. BOWERS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Cleve H. Bowers.

Examination by Judge Holt:

Q. Where do you live?

A. Switchback, West Virginia.

Q. What is your business?

A. Mine foreman.

Q. For what mine?

A. I have been at Lick Branch ever since last Monday morning; I taken charge Monday morning.

Q. Where were you before that time?

A. At Delta colliery.

Q. What was your position there?

A. Mine foreman

Q. How long had you been mine foreman there?

A. Twelve months.

Q. What did you do before that time?

A. I was mine foreman at Lick Branch.

Q. How long had you been mine foreman at Lick Branch prior to going to the Delta colliery?

A. Nine months.

Q. What did you do before that nine months?

A. I was driver boss in Lick Branch.

Q. How long?

A. Two years.

Q. What did you do before that two years?

A. Ran a motor.

Q. How long did you run a motor and where did you run it?

A. Six months in Lick Branch.

- Q. What did you do before that time?  
A. I ran a motor at Rolfe.  
Q. How long were you at Rolfe?  
A. Something near two years.  
Q. Where did you go from to Rolfe?  
A. Pocahontas.  
Q. What did you do over there?  
A. I done a little of everything in the mines and worked on the track.  
Q. How many years have you been working in coal mines?  
A. Between twelve and thirteen years.  
Q. How old are you?  
A. Twenty-four.  
Q. How long have you lived in the State of West Virginia?  
A. I was four years old when I came to West Virginia.  
Q. Give us the number of years?  
A. Twenty years.  
Q. What are your duties as mine foreman at Lick Branch?  
A. My duties is to see that the track is fixed in the mines, slate kept up, ventilation, breakthroughs and all kept in shape, cut at right distance, according to law, and to see that the motors is kept in right shape and run, and the drivers—see that they get them, you know, and all general work in the mines.  
Q. You have charge of the inside of the mine, then?  
A. Yes, sir.  
Q. You have power to employ and discharge men?  
A. Yes, sir.  
Q. What directions, if any, have you given, as mine foreman, with respect to shooting off the solid?  
A. I have given instructions not to shoot off the solid?  
Q. What are your rules and instructions, if any, with respect to carrying powder into the mine?  
A. Each man is not to carry over five pounds.  
Q. Have you ever discharged anybody for shooting off the solid?  
A. Yes, sir.  
Q. Have you kept the measurements of the air currents?  
A. Yes, sir.  
Q. In Lick Branch?  
A. I haven't this last time. I never measured it, as I was only there two days.  
Q. Were you in the mine the day of the explosion?  
A. Yes, sir.  
Q. What parts of the mine did you visit?  
A. I was on S1 entry, in new mine, from there down on the upper part of pillars of 9 cross entry, and from there I was over to 10 heading, 10, and from there down to 112, part of the rooms, and then to the air course, and then went on dip B—Italy, we call it.  
Q. Were you in Italy that day?  
A. Yes, sir.  
Q. What did you find the condition of the mine to be that day?  
A. I found the mine in good condition.  
Q. Did you find any gas?  
A. No, sir; I did not.  
Q. How did you find the air?  
A. Good.  
Q. When did you enter the mine that morning?  
A. It was something near eight o'clock when I went in.  
Q. When did you leave the mine that day?  
A. Something near half past twelve. I came out of the other drift and I went in the new drift and came out at the old drift.  
Q. And you were outside at the time of the explosion?  
A. Yes, sir.  
Q. Did you see anything, or discover anything wrong with the mines that day?  
A. No, sir; I did not.

- Q. Have you a record of the measurements of air for the Lick Branch mine?
- A. Yes, sir; it is on that book. There is a record of the measurements I made, when I was there before.
- Q. These records are in your custody although you have not been there all the time.
- A. Yes, sir.
- Q. Can you take this book and read the recent measurements of air there?
- A. December 7th, intake new main, 31,570 cubic feet. December 7th, intake from second cross off at 3 entry is 11,880 feet. December 7th, on the 5th cross was 21,000 feet; intake on 8 cross entry is 19,200 feet. 81 entry is 22,000 feet; dip B entry was 15,700 feet; 12 entry is 18,000 feet; 112 entry 9,875 feet.
- Q. Those measurements were all of what day?
- A. December 7th.
- Q. What records of measurements have you in that book prior to December 7th?
- A. Not any that I see.
- Q. I said before December 7th.
- A. I have November 31st here as the next one.
- Q. What prior to that time, if any?
- A. October 15th, is the next one.
- Q. Tell us whether the fan was kept running and if so, in what condition, and in what manner on the day of the explosion, if you know?
- A. My instructions from Mr. Atkinson is to examine the fan each day and every morning.
- Q. What did you do on the morning of the explosion as to that?
- A. I went over the fan.
- Q. What did you find?
- A. The fan was all right.
- Q. What time in the day did you examine it?
- A. A little after seven o'clock.
- Q. Was anybody with you when you were making that inspection or examination?
- A. No, sir; there was not.
- Q. State whether or not it is your custom, or habit, to examine the fan every day?
- A. Yes, sir; that is my instructions—to examine it every day.
- Q. Do you do it?
- A. Yes, sir.
- Q. How was that fan driven—I mean by what kind of power?
- A. It was run by electric power.
- Q. Did the fan stop on the day of the explosion?
- A. No, sir; it did not.
- Q. Was it running after the explosion, still?
- A. It was when I got there; I wasn't there when the explosion happened.
- Q. And it was still running when you got there?
- A. Yes, sir; but I wasn't there at the time.
- Q. Have you a copy of the last inspection of that mine?
- A. I haven't one in my pocket but I have one.
- Q. Has anybody got one?
- Mr. Phillips: I have one here.
- Judge Holt: Let me see it if you please.
- [Hands same to Judge Holt.]
- Q. Read it please. This is furnished by State District Inspector Phillips.
- A. "Department of Mines, State of West Virginia. Certified mine inspection. In compliance with the laws I have inspected Lick Branch mine, located at Switchback, in McDowell County, operated by the Pocahontas Consolidated Collieries Company, incorporated, and find it to be in the following condition, on the 25th day of August, 1908.
- First: As to ventilation and its distribution to working faces. Good.
- Second: As to drainage. Fair.
- Third: As to coal dust. None.
- Fourth: As to roof and timbering. Good.

Fifth: As to explosive gas and black damp. None.  
Sixth: As to breakthroughs and stoppings (?) Good.  
Seventh: As to doors and brattice. Fair.  
Eighth: As to oil used. Fair.  
Ninth: As to machinery and appliances. Good condition.  
Tenth: As to electric wires. Good condition.  
Eleventh: As to dangerous practices. None observed.  
Twelfth: As to ingress and egress. Good.  
Thirteenth: As to general safety. Very good condition.  
Very respectfully,

D. R. Phillips, Mine Inspector,  
10th District."

By Mine Inspector Laing: Q. Since you came here as mine foreman of the Lick Branch mine you have been over it how many times?

A. I have been over the biggest portion of it—nearly all of it the day before the explosion.

Q. On Monday?

A. Yes, sir; and I did the work I told you about the day of the explosion and the day before.

Q. Were you over the pillar work on 9 where they were pulling those pillars?

A. Part of it; yes, sir.

Q. Were you up, or did you attempt to go up on any of those falls?

A. On the upper end of the pillars?

Q. Yes, sir.

A. Yes, sir; I was on top of a part of the falls; at least only slate and dirt fell.

Q. You were above where the slate and dirt fell?

A. Yes, sir.

Q. In making your rounds around that mine, did you discover where the mine law was being violated in any way, shape or form?

A. No, sir; I did not. There was maybe two places that the breakthrough entries were a little past the breakthroughs—too far on entries—and they were stopped and the driver boss had told me his instruction was not to have the breakthrough worked and only to have the coal shot and loaded the next day.

Q. Were all the doors and brattices in their proper places and up to where they should be?

A. Yes, sir; the doors and brattices were good, as far as I could see in those two days' inspection, over the mines that I went.

Q. Did anybody ask for supplies of any kind during that time, that you didn't have on hand, such as brattice cloth, or timber for doors, or brattices, or anything of that kind?

A. No, sir; not any at all.

Q. Did you have, or not, around the mine, supplies on hand all that time?

A. Yes, sir; we had plenty of lumber, and also brattice cloth, and supplies to do the brattice work.

Q. Is brattice cloth used in the mine?

A. Yes, sir.

Q. What is it used for?

A. To carry the air to the face of the entry, closer; that is what I have always been instructed to use it for.

Q. You say you were the mine foreman at this mine before?

A. Yes, sir.

Q. Previous to this time?

A. Yes, sir.

Q. How long ago was that?

A. It has been a little over twelve months.

Q. Were they shooting coal off the solid here at that time?

A. They stopped along about that time. I was there when Mr. Phillips made his first inspection at Lick Branch.

Q. Have you observed, since you have been here, any person carrying a keg of powder in the mines?

A. You mean catch them in the mines with it?

Q. Yes, sir.

A. I have once or twice and have sent them out.

Q. Since you have been here the last time?

A. No, sir; not since I have been here the last time.

Q. Have you noticed anybody shooting from the solid?

A. No, sir.

Q. Since you have been around the Lick Branch mine have you ever known a man to be burned in the mine from powder or from fire damp?

A. Any time that I have been here?

Q. Yes, sir.

A. No, sir; I have not.

Q. What is the thickness of the pillar between each breakthrough, in driving your entries and rooms here?

A. 80 feet.

Q. Have you delegated any authority to a subordinate, in any way, shape or form, regarding marking the breakthroughs, or to keep the doors, brattices, etc.?

A. You mean myself?

Q. Yes, sir.

A. No, sir; I have not. I was the man to look after that, and I was the man to see they were cut at the proper time, and proper distance between them. I was instructed to see they marked all breakthroughs.

Q. What I want to know, is, if you had an assistant boss driver?

A. Yes, sir.

Q. That is the only assistant you have in the mine?

A. Yes, sir.

Q. You haven't told him, when he sees an entry or room is put as far as 100 feet, to mark off a breakthrough?

A. I haven't this one; no, sir.

Q. You anticipate attending to those things yourself?

A. Yes, sir; I had never given him any orders like that at all.

Q. And you hadn't told him to attend to the building of doors or brattice, or anything of that kind? In other words, you haven't given anybody any authority of that kind?

A. No, sir; not over there.

Q. Now, what did you understand me to ask when I asked you if you had noticed any shooting from the solid? What do you understand me to mean by a shot from the solid—blasting from the solid?

A. You mean, if I understand you, shooting from the solid face, no under-cut.

Q. Shooting of coal anyway, where it is not mined?

A. Yes, sir.

Q. Blasting it from the solid?

A. Yes, sir; I haven't seen any of that at all.

Q. Did you ever hear of any?

A. No, sir.

Q. You haven't heard of any such practice?

A. No, sir.

Q. And you wouldn't permit it if you had? What would be your instructions if you knew a man was shooting from the solid?

A. I would stop him and I would discharge him and send him out.

Q. Do you know anything about how much powder the miners use in shooting down this coal?

A. I never paid no particular attention to the shots they put in, but I watch them about the powder pretty closely—as close as I can—to see that they don't carry over five pounds of powder in the mines.

Q. After one of these rooms has been mined with a mining machine how much powder does it take to shoot the cut down, twelve feet wide and seven feet deep, and describe, if you please, in what way you miners were accustomed to shooting and loading that coal?

A. They would put a heave hole, you understand, in the middle, up to the

sulphur, and also a rib hole on each side, generally, and these machine cuts is shot with three shots, you know—a heave hole and two rib shots.

Q. They put this hole up to the sulphur, you say?

A. Yes, sir; that pulls the top.

Q. Have you got the mine rules here?

A. Yes, sir.

Q. Where are they posted?

A. At the mines.

Q. What is your instructions to those men, in those mine rules, with regard to shooting?

A. Not to shoot no solid shots at all, without under-cuts.

Q. Is there any limit as to how many shots a man can use in succession, and how much powder he can use right along in succession?

A. No, sir; I never had any instructions of that kind.

Q. Do your mine rules state any such thing?

A. I disremember now whether they do or not.

Q. Then what is your instruction to your men—if a man is driving an entry, and he shoots his middle hole, or as you say his heaving shot; how soon after he shoots that middle shot will he shoot the other two shots?

A. Generally, or most of the time, they load a car or so from that middle hole and then they shoot one of the other rib shots.

Q. Do you know of any miner shooting all three of them without loading the coal?

A. No, sir; I do not. I never go in, but I never knew of any of them shooting three shots before they loaded any of them.

Q. At one time?

A. No, sir; I never have.

Q. What sort of bratticing do you use?

A. What kind of brattice, do you mean?

Q. Yes, sir.

A. We use slate and generally build with slate.

Q. You build with slate?

A. Yes, sir; most of the time.

Q. And then lay it in cement mortar?

A. Yes, sir.

Q. How is the ventilation in the Lick Branch mine conducted? That is, what are your intakes and what is your return?

A. We have got an intake at Tug River.

Q. Where is Tug River?

A. On the other side of the mountain.

Q. How much of an intake have you got there?

A. I haven't measured it since I came here.

Q. Is there a driftmouth there?

A. Yes, sir.

Q. Is it open?

A. Yes, sir.

Q. Do the cars run there?

A. No, sir; we have doors inside.

Q. I understand that is an intake?

A. Yes, sir.

Q. What are those doors for?

A. The doors, I suppose, are for the purpose, if you want to go through, you can do so without building a permanent brattice there.

Q. Where is your air conducted from your Tug River side? To what part of the mine is that taken?

A. Into the dip B entry, so far as I have been over into Italy.

Q. Then Italy gets its air from the Tug River side?

A. Yes, sir.

Q. That is called what? A split?

A. An intake, I suppose.

- Q. Where does that air go?
- A. It goes down through Italy work.
- Q. What is the first work it comes in contact with—what part of your mine that is working?
- A. This dip B entry and dip A.
- Q. It goes from dip A and B to where?
- A. Into 11 entry and then into 12.
- Q. And then where?
- A. Into 112.
- Q. And then where?
- A. In 12.
- Q. And then where?
- A. It turns back into ten.
- Q. Where does that return current go?
- A. Into the fan, I suppose.
- Q. You have worked in the mine before, and are familiar with it, and the air hasn't been changed, has it, since you were there before?
- A. Yes, sir; one split has been made.
- Q. What split?
- A. That is the Tug River split.
- Q. And have you traced the Tug River split, since you have been here—gone right around with it—with the current?
- A. Yes, sir.
- Q. Then, where does it go after it leaves 12 entry?
- A. It goes into 112.
- Q. And where does it get into the return current?
- A. Back down from ten; it goes down ten.
- Q. Where does your split from your new main entry join this here? [Indicating on map.]
- A. Where does it join this?
- Q. No, sir; where does it go? Where is the first working that strikes?
- A. On 3 entry.
- Q. And it is conducted from 3 down to 8, is it?
- A. Three to five.
- Q. And from five to where?
- A. To S1.
- Q. And then where?
- A. S1 down to 10.
- Q. And then where?
- A. Down back to the return.
- Q. Where does the split from the Tug River side and the split from your new main entry—where do these two currents join?
- A. They join at the head of 10.
- Q. How do the two currents get into the head of ten entry?
- A. This Tug River comes around, as I told you, through 112 and back to 10, and the new main comes into 3, and 3 to 5 and S1 and then down to 10.
- Q. And then which is the return—10 entry or 10 air course?
- A. 10 entry.
- Q. 10 entry is the return?
- A. Yes, sir.
- Q. The air comes from your new main entry up 9 air course, does it? After the air has passed 3, 5, 8, etc., down to 9, and down to 10, that split comes up the 10 entry, does it?
- A. Yes, sir.
- Q. It comes up parallel, or rather across to 10?
- A. Yes, sir.
- Q. And then across the breakthrough and rooms and down 10?
- A. Yes, sir.
- Q. What I want to know is where your current or split from the Tug River side joins with that?

A. In joins it on 10, I said.

Q. How do you get the Tug River side up to 10, when it is a return?

A. I did not put it up 10 entry; we pulled it in through the old main from Tug River.

Q. What I want to know is where the two currents join and come back on your return as one body?

A. I told you it is on 10 entry.

Q. What part of 10 entry?

A. The upper part of 10 entry. I can show you on the map, if you want me to.

Q. Show me on the map, then?

[Witness indicates same on map.]

Q. The Tug River side is on there, is it?

A. Yes, sir; it comes in here, right up here and out here. [Indicating.] We have a door in there back here, [Indicating on map.] through this working room, down dip B—that is Italy, and back here, [Indicating on map.]

Q. Is there any door right there? [Indicating on map.]

A. There is a door in here and it pushes it out to here. [Indicating on map.]

Q. What entry is that there? [Indicating.]

A. That is 11.

Q. Now, trace your current through the new side?

A. It don't show it on here.

Q. Show what does come out there?

A. It comes out through here and down through this breakthrough, down through there, and then back here to 10 entry.

Q. Have you, at any time, during your experience in this Lick Branch mine, either as a mine foreman, or anything else,—have you ever heard or known of gas being in there at any time?

A. No, sir; I never did.

By District Inspector Phillips: Q. Did you notice, the day you were in there, or did you pay any attention to the breakthroughs, as you were going through the mine?

A. Yes, sir, some; I was never right close to all of them that day; no, sir.

Q. Did you notice whether the atmosphere in Italy was cloudy that day?

A. No, sir; I did not. It seemed as it did the day before.

Q. Did you visit that mine between December 20th and that day?

A. Yes, sir; but I wasn't through all the workings.

Q. What portion did you go through?

A. I was in Italy, twice; down in dip B heading and air course; and I was over the pillar work.

Q. Were you in any part of 11 and in Italy?

A. No, sir; I wasn't in there.

Q. The doors all seemed to be in good condition, did they?

A. Yes, sir; in good shape; brattice and everything in good shape.

Q. Have you formed an opinion as to what caused the explosion?

A. No, sir; I have not.

By Mine Inspector Laing: Q. In this mine, since you have been going through it, have you ever noticed any place in the mine where the dust was in dangerous quantities, or whether it was pulverized and dry, and would float in the air?

A. No, sir; I have not.

Q. How long have you been working for this company?

A. Eight years.

Q. In what capacities?

A. Different ones.

Q. How long have you acted as a mine foreman, and in how many mines?

A. Only two mines—in Lick Branch mine nine months and Delta mine thirteen months, as mine foreman.

Q. Now, Mr. Bowers, in your experience—working for this company—has there been any time since you have been employed by them that you ever asked for



supplies such as brattice cloth, or brattice boards, or anything else, that your request has not been granted?

A. No, sir; I have always gotten it.

Q. You have gotten everything you ever asked for?

A. Yes, sir.

Q. In the way of supplies?

A. Yes, sir.

By District Inspector Phillips: Q. Have you ever had any experience with fire damp?

A. No, sir; I have not.

Q. Have you had sufficient to know it when you would see it on the safety lamp?

A. No, sir; I could not say I could.

### VERDICT OF JURY.

State of West Virginia,

McDowell County, to-wit:

An inquisition taken at Switchback, W. Va., in the county of McDowell, on the 2nd day of January, 1909, before C. W. White, Justice of said county, upon a view of the bodies of

Domnick Rose, Thomas Howell, Peter Poles, John Hicks, Thomas Swain, Kemp Sanders, Mathew Webber, Luna Naumuk, Jim Smith, John W. Miller, John Brown, George Parvolic, David Bolin, Reed Anderson, Tony Palmara, Joe Edmunds, Green Davis, Aseny Parvolic, Cleve Alexander, Buck Williams, Gregory Boresky, Pleas Cannaday, Samuel Beatty, Pinus Buschuke, Zeff Estes, Thos. Blevins, Robert Williams, John A. Holland, Walter Reynolds, Joe Lockett, Joe Nizuk, Richard Lockett, Charles Little, Wiley Little, J. E. Johnson, Elzy Blevins, George Meaket, J. W. Edmondson, John W. Partin, James Calloway, (known as Holland), Scott Page, Jim Roan, Karp Tarrachuk, Tobe Webber, Jim Lockett, Trofin Harasmuk, Nicola Buschuke, Ab Holland.

And also upon the bodies of two persons unknown there lying dead.

The jurors sworn to inquire when, how and and by what means said persons came to their death, upon their oath do say:

We find that the persons known and unknown, aforesaid, came to their death by an explosion in the Lick Branch Coal mine, near Switchback, in the county of McDowell, State of West Virginia, happening on Tuesday the 29th day of December, 1908, in the afternoon thereof, and from causes unknown to your jurors.

We further find from the investigation that no blame for the deaths of the above persons can be attached in any sense to the Pocahontas Consolidated Collieries Company, incorporated, or any of the officers of said company.

In testimony whereof the said justice and jurors hereto set their hands.

(Signed.) C. W. WHITE. *J. P.*

(Signed.) E. D. CREASY. *Juror.*

(Signed.) WM. BAILEY. *Juror.*

(Signed.) W. H. JACKSON. *Juror.*

(Signed.) J. L. WOOD. *Juror.*

(Signed.) LUTHER VERNON. *Juror.*

(Signed.) S. J. PETERS. *Juror.*

The testimony adduced as to the second explosion is as follows:

# Lick Branch Explosion No. 2.

January 12th, 1909.

TRANSCRIPT OF TESTIMONY TAKEN AT AN INQUISITION HELD  
AT SWITCHBACK, WEST VIRGINIA, ON SATURDAY EVEN-  
ING, JANUARY 16, 1909, RELATIVE TO THE ACCIDENT  
WHICH OCCURRED IN THE LICK BRANCH MINE  
OF THE POCAHONTAS CONSOLIDATED COL-  
LIERIES COMPANY, (INCORPORATED),  
THE 12TH, DAY OF JANUARY 1909.

BEFORE

C. W. White, Justice of the Peace and Coroner,  
And the Following Jury: Bud Bailey, W. C. Horton,  
W. R. Sheets, Charles Harris, O. R. Anderson and  
E. W. St. Clair.

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Present: John Laing, Chief of Department of Mines.  
D. R. Phillips, Inspector, 10th District.  
Earl A. Henry, Inspector, 9th District.  
P. A. Grady, Inspector, 12th District.  
William Nicholson, Inspector, 11th District.  
Delegate Mitchell, member of the legislative committee, and  
E. C. Frame, Stenographer.  
John H. Holt.  
D. J. F. Strother.  
Isaac T. Mann.  
Charles S. Thorn.  
James E. Jones.

Justice White: Gentlemen, are you ready to proceed?

Judge Holt: I believe that we are ready and I hope you will state to the jury and the people assembled the object of this investigation and how you propose to conduct it.

Justice White: I would first like to ask the jury whether any one of them is related to this company in any way, shape or form. I mean by that if you have any interest in the company, or whether you are in any way connected with it?

[All the jurors answer "no".]

Q. Have you any relative who has been killed in the mine—in this explosion in the Lick Branch Mine?

[All the jurors answer "no".]

Mr. Strother: I would like to ask the jury whether they are all residents of the State of West Virginia and of McDowell county.

Mr. White: I asked them that question before I swore them in as jurymen.

Justice White: I would like to state this: There are perhaps three representatives here, and we would like to let any one who wants to represent the State or the state mining department, or anyone else, go ahead and lead out and ask any questions that they may want to ask and deem necessary to be asked. I will leave it with Judge Holt, Mr. Strother, Dr. Mitchell, or Mr. Laing, as to what they want to do concerning the questioning.

Judge Holt: Mr. Laing and Dr. Mitchell, you have heard the coroner. Our idea was to put Mr. Phillips on the stand, as he is the mine inspector for this district, and get a fair and impartial statement from him as to the situation both before and after the explosion, and in regard to anything that occurred. I understand, however, that he is coming from Bramwell, and will be in on No. 3 to-night, and if you have anyone you care to introduce at this time, or if Dr. Mitchell has anyone he desires to introduce, we will be glad for you gentlemen to proceed now.

Mine Inspector Laing: We could examine the physicians, and see as to the condition of the bodies and identify them, and by the time we get through with that, Mr. Phillips will be here.

Judge Holt: Very well, we will do so, and will call Dr. E. F. Peters first.

E. F. PETERS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of E. F. Peters.

Examination by Judge Holt:

Q. What is your profession?

A. I am a physician.

Q. Where do you reside?

A. Maybeury, West Virginia.

Q. Have you examined the bodies that have been brought out of the Lick Branch mine after this explosion which occurred on the 12th day of January, 1909?

A. I have examined personally all except about eleven or twelve myself.

Q. Have you the names of the persons who were killed therein, and have you any means of identifying them?

A. I have. I have a list of all that have been identified, and I have several unidentified.

Q. Please give to the stenographer, and state to the coroner and jury, the names of all those you have been instrumental in identifying in any way.

A. I will.

Q. Just give the name of each man whose body was brought out, the means of identification, and all that you know about the situation?

A. I have that information in an abbreviated form here and I can read it off to you, or we have the reports made out in detail, if you want that.

Q. You may give each in the brief form first, and then these gentlemen can ask you any questions they desire afterwards?

A. Very well, I will do so.

1. Everett Phillips, .....	white .....	single
2. Luther Boldin .....	colored .....	single
3. Walker Giles .....	colored .....	married
4. John Hunter .....	colored .....	married
5. George Enssey .....	colored .....	married

6.	J. H. Cobbs	colored	married
7.	Chas. Phillips	white	single
8.	A. R. Jones	colored	
9.	Frank Hairston	colored	married
10.	Ed. Rose	colored	single
11.	Brown Lee	colored	married
12.	Unidentified	colored	
13.	Unidentified	white	
14.	Henry Lee	colored	married
15.	George Peters	white	married
16.	Ernest Terry	colored	single
17.	Unidentified	colored	
18.	Unidentified	colored	
19.	Elk Clark	colored	single
20.	Unidentified	white	
21.	A. R. Miller	white	married
22.	Joe Jones	white	single
23.	Taylor Staples	colored	married
24.	David Surratt	white	married
25.	Ed. Collins	white	single
26.	Riley Surratt	white	single
27.	Anthony Johnson	colored	married
28.	Lemuel Dean	colored	single
29.	James Ayers	white	single
30.	Robert Wyatt	white	single
31.	Henry Bowles	white	married
32.	Dan Arrington	white	single
33.	Dowdy Miller	white	single
34.	Peter Heppenstall	colored	married
35.	Unidentified	colored	
36.	C. J. Hairston	colored	single
37.	J. Henry Bolen	white	single
38.	Mike Robinsky	white	married
39.	Mel. Hunter	colored	married
40.	John Mitchell	colored	married
41.	H. A. Leonard	white	married
42.	S. C. Clark	white	married
43.	Unidentified	white	
44.	Unidentified	white	
45.	John Mahoney	white	
46.	Albert Abell	white	married
47.	Henry Waller	colored	married
48.	Unidentified	colored	check SS.
49.	Tobe Hutcheson	colored	single
50.	Walter Martin	colored	married
51.	Jim Martin	colored	married
52.	Bruce Mann	colored	single
53.	Chas. Howard	colored	single
54.	Floyd Buffalo	white	married
55.	Chas. Wellford	white	married
56.	Jno. Smith	white	married
57.	Walter Eversole	white	single
58.	Con. Holladay	white	married
59.	Clarence Mitchell	colored	single
60.	Dan Watson	colored	married
61.	A. P. McDade	white	married
62.	Will Durphey	colored	married
63.	Jno. Hague	white	
64.	Thomas Myers	white	
65.	Robert Buffalo	white	married

By Judge Holt: Q. It might be well to ask a few questions which should have been asked in the beginning. What is your profession?

A. Physician.

Q. Are you a graduate of any school?

A. I am.

Q. Of what school?

A. I am a graduate of the Maryland Medical College, of Baltimore.

Q. How long have you been practicing medicine?

A. Ever since 1902.

Q. Where were you at the time these men were brought out of the mine, whose names you have given to the jury?

A. I was not at home at the time the first ones were brought out. I was in Baltimore, Md., at the time the explosion happened.

Q. When did you come back to Switchback?

A. I came back on No. 15, on the morning following, and got here a little after eight o'clock, I think.

Q. Where did you examine these bodies?

A. I examined them in the morgue.

Q. At Switchback?

A. Yes, sir.

Q. Were there any other physicians with you?

A. Yes, sir; I had one or more physicians with me in each and every examination that I made. There was a few that I did not examine possibly.

Q. Who were these other physicians?

A. Drs. Lucas, Price, Kirk, Jett, Whitman. Dr. Haller, I understand made several examinations before I came over, and Dr. Anderson and others.

Q. In what way were these bodies identified?

A. All of them were identified by their friends and relatives.

Q. Was it done in your presence, or the presence of these other physicians?

A. Yes, sir; all of them were identified in the presence of some of the physicians, some one or the other, to the best of my knowledge.

Q. Did you know them personally, or were they identified by their friends?

A. You mean did I personally know the victims?

Q. Yes, sir.

A. Yes, sir; I knew quite a number of them personally.

Q. And did the friends of others identify them, in your presence, or not?

A. Yes, sir; they did; all the bodies that I examined that it was possible to identify.

Q. What was the total number of bodies recovered from the mine?

A. Sixty-five.

Q. How many of them were identified, and how many of them remained unidentified?

A. Eight I believe remain unidentified.

Q. And the residue were identified?

A. Yes, sir.

Q. Does the list you have given cover the entire number of people?

A. Yes, sir; so far as I know.

Q. Who, of the physicians that were present with you, are here present tonight?

A. Drs. Price and Lucas.

Q. On what days were you engaged in identifying these bodies?

A. It happened on the 12th of January, I believe?

Q. Yes, sir.

A. I came on the morning of the 13th, and I have spent most of my time identifying and making examinations of the bodies after that time until the last man was brought out which was four o'clock, I believe, yesterday evening.

Q. What, in your judgment, was the cause of the death of these people whom you examined there?

A. That would be just a little hard to state specifically, but in a great many cases I think death was due to traumatic traumatism, and was instantaneous,

and some of the others, which seemed to be a small per cent, seem to have been due to asphyxia.

Q. Then as I understand, some of them died from burns, and others from suffocation?

A. Yes, sir.

Q. Where were these bodies brought from the mine—to what point were they brought for examination by you, or your associate physicians?

A. They were brought to the carpenter shop, near the Lick Branch coke yard.

Q. How far was that from the driftmouth of the Lick Branch mine?

A. It was something near half a mile, I suppose.

Judge Holt: Dr. Mitchell, if there is any question that you desire to ask, I would be glad for you to ask it, especially as you are a physician, and we would likewise like for Mr. Laing to ask any questions that might suggest themselves to him.

Delegate Mitchell: I have no questions to ask.

Q. Which of the physicians engaged in these examinations with you, are present here tonight?

A. Drs. Price and Lucas.

Judge Holt: Unless Mr. Laing, or some gentleman on the jury desires to ask you something, we will excuse you for the present and call them.

Justice White: Any questions gentlemen of the jury?

Jurors: No.

By Mr. Strother: Q. You can state that none of these sixty-five men died from natural causes, can't you?

A. Yes sir, it is not my opinion that they did.

Q. And all of them died in the mine of the Lick Branch mine?

A. Yes sir.

Q. As a result of some disturbance in the mine?

A. Yes sir, that has been my information, while I was not here at the time of the explosion.

Q. Such were the evidences, were they not?

A. Yes sir.

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S. D. PRICE, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Dr. S. D. Price.

Examination by Judge Holt:

Q. Give the stenographers your full name?

A. Samuel Davies Price.

Q. Where do you reside?

A. Switchback, W. Va.

Q. How long have you lived here?

A. Since the 1st of last April.

Q. What is your profession?

A. Physician.

Q. Are you a graduate of any school?

A. Yes, sir.

Q. Of what school?

A. University of Virginia.

Q. When did you graduate there?

A. June, 1904.

Q. How long have you been practicing medicine and surgery?

A. Since June, 1904, about four and one half years.

Q. Where are you located now?

A. Switchback, W. Va.

Q. You may turn there and tell the court and jury just what you know about

this explosion at Lick Branch, and the identification of the bodies that were taken therefrom, in your own way, and as briefly as possible.

A. You mean for me to give you the names of the ones that I was present at the identification of?

Q. Yes sir, and anything you may know about it.

A. Do you want me to give you the names?

Q. Yes sir, if you have them, and if you can do so—I will ask you first, did you hear the list of names read here by Dr. Peters, who preceded you upon the stand?

A. Yes, sir.

Q. You may state to the court and jury whether or not that was a correct list?

A. Yes sir, it was, to the best of my knowledge, but all of these I was not present at the examination, only some of them, beginning with number 35.

Q. You may tell just what you know about the identification, beginning with Number 35, and running to the end.

A. Beginning with No. 35 and going down to 58, I was present, and then No. 63 to 64, inclusive, I was present.

Q. Did you identify those bodies there?

A. Yes sir, I did, with the assistance of some other people, who aided me.

Q. In what way were they identified—did you know any of them personally?

A. Some of them, I did.

Q. Did you have any difficulty in recognizing those you did know personally?

A. No, sir.

Q. What assistance, if any, was given by friends of the deceased, in making the identification?

A. Friends of the deceased, who knew them, identified them.

Q. Are you fully persuaded that they were fully identified, and properly identified—I mean such of them as you undertook to identify?

A. I think so.

Q. How many of them did you fail to identify?

A. There were eight in all that were not identified. Do you mean for me to tell you the ones I was present at?

Q. Yes sir.

A. Three of them.

Q. There were three of them that you could not identify?

A. Yes sir.

Q. When were they brought out of the mine, do you recall?

A. Some of them were brought out on the 13th, 14th and 15th, that I was present at.

Q. State what opportunity, if you know, has been given to the public, and to enquiring friends, to identify those unidentified people?

A. All opportunities that could be given. I think a description was written of the unidentified, and placed on the front of the morgue, and everybody was asked to come in and identify them if they could so do.

Q. Did they have a full, fair and free opportunity to examine the bodies?

A. Yes sir.

Q. State whether or not anyone was there to assist them in this examination?

A. Yes sir, there were always several people there to take them around and show them the unidentified bodies.

Q. Upon inquiry by anyone, what was done by those in charge of the morgue in the way of giving the people an opportunity to identify the bodies?

A. As I said just now, a description of each unidentified body was written and posted on the outside.

Q. If anybody came in response to that notice, to examine the body, were they given a fair opportunity to do so?

A. Yes sir. They were admitted and taken around to each body separately there, and asked if they could identify them, and they were given every opportunity possible.

Q. State, whether or not, if they made any requests with respect to exposing the bodies, it was complied with, or not?

A. All requests to my knowledge that were asked were granted.

- Q. What other physicians were there with you?  
A. At the time I was present, do you mean?  
Q. Yes sir.  
A. There were Dr. Motley, and Dr. Lucas, and Dr. Peters.  
Q. Dr. Peters has already been upon the stand?  
A. Yes sir.  
Q. Who else is present besides yourself, among the physicians, than Dr. Peters?  
A. And Dr. Jett was there part of the time.  
Q. Is he here tonight?  
A. No sir.  
Q. Who else is here?  
A. Dr. Lucas.  
Q. When these bodies were brought out, what was done with them, not only with respect to identifying them, but with respect to preparing them for burial, or anything of that kind?  
A. You mean after they were gotten to the morgue, or from the driftmouth on?  
Q. Yes, sir; from the driftmouth on?  
A. When they reached the driftmouth, they were kept inside and placed on separate cots and blankets put over them, and then they were placed on a car and carried to the morgue by the motor, and there their clothes were taken off and they were given a thorough bath, and then arranged on clean boards, and later they were prepared for burial by the undertakers, being embalmed—those that could be.  
Q. They were embalmed, were they?  
A. Yes, sir; those that could be, and those who were mangled, were wrapped in a hardening preparation, and placed in a metallic casket.  
Q. Who furnished the caskets?  
A. The company.  
Q. You mean the owners of the Lick Branch mine?  
A. Yes sir, the Pocahontas Consolidated Collieries Company, Incorporated.  
Q. And the public had full opportunity to examine them?  
A. Yes sir, the unidentified remained out there until the last day, which was yesterday.  
Q. Were the unidentified men kept as long as they could reasonably be kept before they were shipped for burial?  
A. As long as possible. They remained out on the board so that the people could come and identify them.  
Q. I believe you told me there were eight unidentified?  
A. Yes sir, eight in all.  
Q. Do you know when they were brought out of the mines?  
A. I don't remember now—some were brought out on one day, and some on another, but I have brought notes from which I could tell you as to that.  
Q. How long were they kept subject to examination?  
A. Until yesterday evening.  
Q. Could you have kept them any longer decently?  
A. Sufficient time, I think, was already given for identification.  
Q. What was the condition of these bodies?  
A. Some of them were in a pretty bad condition.

J. B. LUCAS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of J. B. Lucas.

Examination by Judge Holt:

- Q. Give the stenographers your full name?  
A. James B. Lucas.  
Q. Where do you reside?  
A. Maybeury, West Virginia.  
Q. How long have you lived there?



A. Three years.

Q. What is your profession?

A. Physician.

Q. Are you a graduate of any school?

A. I am.

Q. Of what school?

A. University College of Medicine, Richmond, Va.

Q. How long have you been practicing medicine?

A. Since 1899.

Q. Were you present with Dr. Peters and these other physicians in the examination and identification of the bodies that were brought out of the Lick Branch Mines?

A. Only the last eight that were brought out yesterday evening.

Q. Have those bodies been identified?

A. There were seven of them identified last night, and I understand the other one was identified after I left.

Q. What was the cause of the death of those bodies that you examined?

A. A majority of them were from violence of second and third degrees, and one or two from traumatism, or external violence, and one or two from asphyxia, or suffocation, and others from burns, and none of them died from natural causes, in the ordinary sense of the term.

Q. How many of the 65 bodies did you see?

A. I saw a great majority of them, but I assisted only in the examination of eight at the morgue. My time was occupied at the driftmouth.

Q. What were you doing at the driftmouth?

A. I was there aiding in the transporting of the bodies from the driftmouth to the morgue, and also to be on hand at the driftmouth, if anything should happen to the rescuing party.

Q. And I suppose also to assist anybody that might be brought out living?

A. Yes sir.

By Mine Inspector Laing: Q. Was any of the rescuing party brought out during the time you were there, that needed your assistance?

A. Yes, sir; there was one man. I learned his name, but I have forgotten his name.

Q. What was the matter with him?

A. He seemed to be suffering from miner's symptoms of asphyxia, but he recovered in ten or fifteen minutes.

By Judge Holt: Q. How many of those bodies were there that remained unidentified?

A. That is a question I could not answer, but I understand there were eight, but I could not say for certain.

Q. Do you know how long the unidentified bodies had been kept at the morgue?

A. No, sir; I do not, but they were kept there up until to-day, or yesterday.

Q. When did the explosion occur?

A. Tuesday, Jan'y. 12th, 1909.

Q. And this is Saturday, the 16th of January?

A. Yes sir.

Q. Then between the time of the explosion and the present time, there would have intervened how many days?

A. Three and one third or four days.

Q. You may state, whether or not, it would have been proper to have kept those unidentified bodies any longer than today?

A. No, sir; I think not.

Q. Why not?

A. Because of the changes the bodies would undergo in that time, post mortem changes.

Q. You think they should have been buried?

A. By this time, yes sir.

A. H. STOW, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of A. H. Stow.

Examination by Mine Inspector Laing:

Q. Where are you from Mr. Stow?

A. Baltimore, Maryland.

Q. Where are you living now?

A. Maybeury.

Q. Have you any interest or position with the Pocahontas Consolidated Collieries Co., Inc.?

A. I have a position with them, yes, sir.

Q. What is that position?

A. Engineer of the Elkhorn division.

Q. Would you please show the jury the courses of the ventilation of the Lick Branch mine before and after the explosion, on that map? I would like you to show to the jury the way the mine was ventilated before the first explosion, and then after the first explosion, and previous to the last explosion, and before tracing that, will you please designate or state where the intake was, how the air traveled, and where it was discharged by the fan, or whatever process it was discharged on the outside. Do that verbally first before you start to trace it on the map, so that the stenographers can take it down.

A. There are two intakes in Lick Branch mine, first at the new main, as we call it.

Q. Please state where the new main is located, on what branch?

A. I believe it is Lick Branch, but I am not positive as to the name of the branch, the original name.

By Judge Holt: Q. It is on the Tug River side, isn't it?

A. No, sir; on the Elkhorn branch.

By Mine Inspector Laing: Q. Now, go ahead with your answer?

A. Now, the other intake is on the Tug River side of the ridge, at the old drift as it is called. Now, this new main split goes up and is deflected by a door, or was previous to the explosion, deflected by a door, through there ———

By Judge Holt: Q. Just designate where that is so that it can go in the record.

A. That door was at the mouth of the Jamestown entry between the Jamestown air-course and Jamestown entry, between the mouth of the two; from there it traveled to the head of number 3 heading or three cross left as it is usually called, in the same way, turned down No. 4 heading, which is 3 cross air-course, and from there it traveled around the face of 3-3, or 3 cross right, off of 3 cross left; from there it was turned down 3 cross air-course or No. 4 heading, around 3-2 and again down No. 4 heading or 3 air course, and from there around 3-1, or first cross right off of 3 cross left, and then returned to new main. From that point it was deflected through 5 cross workings by a door at the mouth of 5 cross. I should say that it had been sometime to that, immediately previous, as I remember, it traveled through 5-1 air-course to No. 8 heading, and from there up straight 8 cross, returning down 8 cross air-course to 8-1 to head of the new main, returning down air-course new main to opposite No. 10 entry; from there it was deflected to the head of 9 cross pillars and from there it was distributed between 9th cross and the 10 cross, returning to the mouth of the 10 cross off the old main.

Now, we will leave the new drift split at that point and take up the Tug River split, which came in at that point. Tug River split, came on up 10 cross air-course to the old main air-course, down to what is known as Italy or dip B and through that again to the old main air-course which brings it round to the head of the old main; from there it was deflected through 12-1 entry to No. 12 head and through No. 12 air-course and down No. 12 heading to 11-1 to 11-2. From that point it was deflected up No. 11 head to the head of that, and from that across 10 cross air-course to No. 10 entry, down which entry it returned to the point of the other split. From that point the two currents went through the open breakthroughs at the Tug River end of old main and returned down the old main air-course to the fan, at what we call the old driftmouth.

By Inspector Laing: Q. Will you please state how those two currents were

regulated as to the number of men and as to the volume of air that went into each split, and was carried through each opening around the mine?

A. With the exception that I cannot state as to the number of men, but we have those two splits, and they were something like equally divided.

Q. Did you ever measure the volume of air at those two splits yourself?

A. No, sir; I did not. I depended on the reports that my assistants would make to me.

Q. This work is laid off by yourself, is it not?

A. Yes sir.

Q. How far do you mark your breakthroughs?

A. I have never considered laying off the breakthroughs. This mine foreman is supposed to look out for the breakthroughs; we simply lay off the heads and rooms.

Q. Have you any knowledge of when it is necessary to drive an entry or room or an air-course beyond a certain limit, whether or not, the air was conducted to the face of that place by a brattice or any other system, other than by natural ventilation, from the current that passes the mouth of the place?

A. No definite knowledge, personally.

Q. How long have you been a mining engineer?

A. Since 1888.

Q. To the best of your knowledge, is this a practical system of ventilation?

A. In a general way I would consider it such.

Q. Would you please state to the jury the course of ventilation since the first explosion, and the course of ventilation when they began to clean up the mine on Monday a week ago?

A. Shall I begin at the new drift?

Q. Yes, sir.

A. I cannot state as to the details of the ventilation of this section (3 cross) although I infer—possibly you don't want what I infer?

Q. I appreciate the fact that you are not supposed to know as to the course of ventilation since the explosion I realize the fact that you are a busy man, and are busy at other things, but if you do know the system of ventilation since the last explosion, I would like for you to designate it on the map, if not, we will excuse you?

A. I can state definitely as to the old part, but not as to the new, since the first explosion. Shall I give the part I do know?

Q. I will ask you whether or not, that same system of ventilation was used since the first explosion, that was used before the explosion?

A. I cannot state that definitely, but I suppose it was, though I don't know. There was no examination made of the details or examination between the two explosions by myself or the engineering department.

Q. How often have you been in the mines since the first explosion?

A. I couldn't state positively, but I have been in quite frequently.

Q. Have you been in the mine to-day?

A. Yes, sir; I was in to-day.

Q. Could you give the jury any knowledge of where, in your opinion, the last explosion occurred, that occurred on last Tuesday morning at about 8:30 o'clock?

A. I am hardly in a position to do so.

Q. Mr. Stow, with your knowledge of these mines previous to the first explosion, and to the last explosion, as a mining engineer, would you consider the Lick Branch mine a dangerous mine as regards dust?

A. That question, Mr. Laing, I can only answer relatively, and as compared with such mines as I have been acquainted with in the last 20 years, and I would say that Lick Branch compared favorably.

Q. Then, with your experience with this and other mines, you would say, as I understand you, that you would not consider the Lick Branch mine a dangerous mine so far as dust was concerned, if properly ventilated?

A. As compared with other mines?

Q. Yes, sir.

A. It would not be dangerous with proper ventilation, compared with other mines.

Q. In all of your experience here in this mine, as engineer, have you ever known fire damp or gas of any nature to be ignited in this mine at any time during your service as engineer, or, at any other time?

A. I have not.

Q. Have you ever during that time heard the mine spoken of as being in danger from any source?

A. I have not.

Q. In your trips around the mine, I ask you to state to the jury the condition of the brattices and doors that were supposed to conduct the ventilation around the mine—as to the condition of the doors and brattices—whether they were properly kept up, or whether they were neglected, and the ventilation allowed to leak and waste through?

A. With the exception of being necessarily relative as the others were, but compared with other mines, the Lick Branch mine, was above the average.

Q. Mr. Stow, was there ever at any time, any part of this mine that was watered or sprinkled for the purpose of laying the dust? To your knowledge, I mean?

A. Not to my personal knowledge.

Q. State to the jury as to the character and qualifications of the mine foreman, and the general mine foreman, who were in charge of this mine since you have occupied the position of engineer?

A. I have little personal acquaintance with the undermine foreman—that is something I have no connection with—my business connection has been with the general mine foreman.

Q. I wish you would state as to the character of the general mine foreman, and his ability as a mine manager, so far as you know?

A. I would say that Mr. Atkinson is above the average.

Q. You believe him thoroughly competent to manage a mine?

A. Yes, sir; I think so—that is my opinion.

Q. Both as to caring for the pillars, brattices, and caring for the men and property in general?

A. In a general way, Mr. Atkinson is a thoroughly competent man. I would say.

By Delegate Mitchell: Q. Is this a damp mine, or is it a dry one?

A. It is rather betwixt and between. In some sections of it, there is quite a good bit of water, and in other parts of it, it is comparatively dry.

By Mine Inspector Laing: Q. Is there any part of the mine that is dangerously dry, that you have seen in the mine?

A. It has never struck me so.

Q. Is there any part of the mine that you would see dust raising and going with the current, floating with the current? I mean with the ventilation of the mine?

A. That is previous to the explosion?

Q. Yes, sir.

A. Nothing that has been noticeable.

Q. Was there a general moisture on the roof and bottom of the mine, as far as you could see?

A. Lick Branch, possibly two weeks or a month, or somewhere in that neighborhood before, was quite damp, and the roof was moist. The general condition as regards moisture about as stated, was good. The roof was sweating and dripping with moisture.

Q. I believe you went around most of that mine, when an examination was made previous to the last explosion, by the mine department?

A. I was with them.

Q. I will ask you to state whether or not, during that time, whether there was a general moisture on the roof, sides and bottom of the mine, on that inspection?

A. It was, as I remember it, in a good condition between the two explosions, but I had not made a thorough examination as to that since the last explosion.

By Mr. Strother: Q. How old are you?

A. 41 years old.

Q. What experience have you had as a mining engineer, and in what different localities?

A. I was for the first four years in West Virginia, in the mining business. I was engineer for the Old Flat Top Coal Land Association, now the Pocahontas Coal and Coke Company. From there I went to the lower field, and I was for nearly a year, engineer for the Elkhorn and Sandy River Co. For some years after that, I did a lot of miscellaneous work for different coal companies, and private individuals, and about the year 1900, but I wouldn't be positive as to the exact date, I took charge of the engineering of the Red Jacket Consolidated, which was originally known as the Logan Consolidated, and was engineer for them about three years, previous to accepting an engagement with the Pocahontas Consolidated Collieries Co., Inc., as it is now known.

Q. You have been connected with this Company then since about 1903 or 1904?

A. Yes sir.

Q. And this Lick Branch mine has been in your territory has it?

A. Yes, sir; it has.

Q. From your knowledge and experience of mines in this county, and this state, Mr. Stow, would you consider the ventilation in this mine good?

A. I do.

Q. Did you visit the mine after the first explosion, and prior to the second explosion?

A. I did.

Q. How many visits approximately, did you make between the two explosions?

A. Without looking at the records, I would say at least four or five trips.

Q. Did you visit all portions of the mine pretty generally?

A. No, between the two explosions I was not in the old drift as it is called, which is between the new main and the old main, almost exclusively, in fact, I believe exclusively.

Q. Can you state if after the first explosion and prior to the second one, the ventilation of that portion of the mine you visited and inspected, was good?

A. I considered it first rate.

Q. I believe you have stated as an opinion in your former examination, that you had never encountered dust which you considered was dangerous to the safety of the mine?

A. No, sir; that was relatively—compared with other mines.

By Mine Inspector Laing: Q. How is the mine ventilated—what system?

A. It has an exhaust fan.

Q. What make fan is it?

A. It is a very old type fan, but I don't know the name of it.

Q. Do you know the size or the diameter of it?

A. I cannot state that on oath.

Q. What motive power has it?

A. An electric drive.

Q. Do you know the capacity of that?

A. I cannot state that positively.

By Mr. Strother: Q. How long after the second explosion occurred was it before you reached the new driftmouth?

A. About a couple of hours, I judge.

Q. How long after the second explosion was it before you got to any of the openings of the mine?

A. I went to the new drift after the second explosion—now, I should state that I do not know positively the time of the second explosion. I have heard it stated to be 8 o'clock and a quarter to nine, but at any rate I reached the new drift at ten o'clock, or within a few minutes of it.

Q. Did you take the measurement of the air at the new driftmouth about that time?

A. I did.

Q. What did you find was going into the mine?

A. One reading was 54,000 cubic feet per minute, and another reading was 48,000 cubic feet per minute.

Q. Was the fan running at that time?

A. It must have been.

D. R. PHILLIPS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of D. R. Phillips.

Examination by Mine Inspector Laing:

Q. What is your business?

A. Deputy Mine Inspector.

Q. Are you the deputy mine inspector, in the district in which the Lick Branch mine is located?

A. I am.

Q. What district is that?

A. No. 10.

Q. How long have you been a Mine Inspector in this district?

A. Since a year ago last July.

Q. When did you inspect the Lick Branch Mine previous to last Tuesday?

A. On Monday and Tuesday of the previous week—that is, a portion of the mine.

Q. A portion of the mine?

A. Yes sir.

Q. Did you inspect such portion of the mine during that time, as you had any reason to believe needed your attention at that time?

A. I did so.

Q. In what condition did you find the mine in, on that inspection?

A. The area that had been covered by the explosion was of course in a rather torn up condition. The walls, however were damp and the roof, also the floor damp.

Q. You say that was the area covered by the explosion?

A. Yes, sir.

Q. What explosion is it that you have reference to?

A. The one happening on the 29th day of December, 1908, the first one.

Q. I judge from your answer heretofore made, that there was a portion of the mine that was not affected by the explosion?

A. Yes, sir.

Q. I will ask you to state to the jury the condition of the mine on your last inspection, that was not affected by the explosion of December, 29th, 1908?

A. I considered the mine in good condition, and made a report accordingly.

Q. How many years experience have you had in mines?

A. 40 years.

Q. Have you ever had any experience in gaseous mines?

A. I have.

Q. Where?

A. Some mines in Pennsylvania, and others in West Virginia.

Q. Please name some of those mines?

A. The Big Mine Run Colliery in Schuylkill county, and Repleer Colliery, the Rolling Mill Mine in Pennsylvania. Do you want me to name those in West Virginia?

Q. Yes, sir.

A. The Simpson Mine, Delta County, Thomas 23 Mines, and I think that is all in West Virginia.

Q. Were you ever a mine foreman in Pennsylvania?

A. Yes, sir. I hold a mine certificate, first grade.

Q. With your forty years experience in mines, did you previous to the explosion of December 29th, 1908, consider, the Lick Branch Mine a dangerous mine, either from gas, dust or any other cause, so far as you could see?

A. No, sir; I did not.

Q. Did you ever make a report of any kind or character to the Mine Department, that is, to the Chief of the Mine Department of the State, stating that the Lick Branch Mine had any danger attached to it in any manner, shape or form?

A. Never to my recollection.

Q. Have you a record of your report on Tuesday before the last explosion?

A. Yes, sir; I have.

Q. Please read it to the jury?

A. The report of the inspection do you mean?

Q. No, sir; I just want your instructions to the mine foreman?

A. What instructions I gave to him were verbal.

Q. I don't want you to read the whole of your report?

A. I thought that is what you had reference to.

Q. No, sir; I simply asked you to state what you said to the foreman verbally then?

A. He asked me in regard to putting the men in there to work, and I told him he could put the men in on the old side to clean it up.

Q. What date was that?

A. A week last Tuesday.

Q. That was between the two explosions?

A. Yes, sir. He asked me if he could place men in there, and I told him he could put men in there, because we had examined it, and as I told you, found the walls and roof and floor damp, and I considered it perfectly safe for men to go in there. The ventilation was good, and I considered it perfectly safe, and I told him he could take a sufficient amount in there to clean it up, and I told him to put that work in charge of practical men, men who understood the dangers that might be encountered there and he said he would.

Q. That was in the old part of the mine?

A. Yes, sir; and then he asked me about the other side, and I had made an investigation over there the night of the explosion, and I went back on that side to see if the explosion had had any effect over in there, and to see whether the ventilation had been interrupted, and I found that the explosion had not extended up in there at all. It had not extended to the line of the new main entry. I went up into what is called S straight for some distance, and I found that the ventilation had been uninterrupted, not interrupted in that section at all, neither was there any effect from the explosion, and no dust or soot or anything from the explosion, so I told him he could place men there to work.

Q. You mean to dig and mine coal?

A. Yes, sir.

Q. Please state to the jury the course of ventilation during that inspection, and whether or not it was conducted in the same manner that it was previous to the first explosion, or not?

A. No, sir; it wasn't entirely so.

Q. Where was the main volume of air traveling?

A. It was traveling from the new main through these works that were being operated since the first explosion.

Q. What part of the mine was affected by the first explosion?

A. The entries that are driven from the old main entry.

Q. And from your inspection of that part of the mine, that part of the mine, as I understand you, had been affected by the first explosion?

A. That is the new main entry, you mean?

Q. Yes, sir.

A. No, sir; those workings had not been affected whatever.

Q. Then the largest volume of air, or the main volume of air was being taken into the mine from the new main opening?

A. Yes, sir.

Q. And it would proceed to the men working in the part of the mine that was not affected by the first explosion, before going to the part of the mine that was affected by the first explosion?

A. Yes, sir; it was carried directly to that part.

Q. I would ask you, whether or not, with the men working in the part of the mine that was affected by the first explosion, cleaning up the entries and cleaning up the mine, whether any dust that might be stirred up by those men, would that come in contact with the men that were working on the coal, or not?

A. No, sir; it would not.

Q. Where would it go?

A. It would be carried out towards the face, out in the return air-way.

Q. I ask you whether or not there were any men on that return that would be affected by that dust, or in any way would it come in contact with the men working at all in the mine, other than the men who were cleaning it up and making preparation for putting that part of the mine in condition to begin operations again?

A. No, sir; I think not. I did not see where anybody could be placed working in the return current, that would be affected by it.

Q. Please state whether or not, there could be any danger in men working at coal in the part of the mine that was not affected—could there be any danger to those men, from the men working cleaning up the part of the mine that was affected?

A. No, sir; that would be impossible.

Q. Was there any more danger in the men working where they were working during the last explosion—any more danger in their working there than there was previous to the first explosion?

A. I did not consider it so.

Q. If there was any danger in that part of the mine, should it have exploded and become a part of the first explosion, or should it not, in your judgment?

A. If there had been any danger previous, do you mean?

Q. Yes, sir.

Mr. Strother: I do not understand that question.

Mine Inspector Laing: What I want to ask Mr. Phillips is this—there was a certain part of the mine previous to the first explosion that did not explode, and and was not affected by the first explosion, and what I want to ask you is, whether or not, if that was a dangerous part of the mine, whether it should or should not have exploded during the time of the first explosion. If that part of the mine was dangerous, why didn't it explode when the other part of the mine exploded. Please state now Mr. Phillips, whether or not in your judgment, the part of the mine that did not explode, from the first explosion, whether you had any reason to believe that it was dangerous after the explosion, for the men to go to work in?

A. None whatever.

Q. Would any of the mine management, the mine foreman, or general mine foreman, or the mine management in general in your judgment, have any reason to believe that that part of the mine was in danger of an explosion?

A. No, sir; I don't think they would—I couldn't see how they could.

Q. In all of your experience in mine explosions, did you ever know a condition of a similar character as we have just had at the Lick Branch Mine?

A. I never knew of a repetition just of that kind.

Q. Did you ever know of a local explosion before in any mine without affecting the whole mine?

A. Yes, sir; but not a dust explosion, so far as I know, they were gas explosions.

Q. Then it is not unnatural in the mining of coal to have a local explosion in any part of the mine at almost any time in your judgment?

A. No, sir; it is a very natural condition, I think.

Q. Such things happen universally throughout the world do they?

A. Yes, sir.

Q. On your last inspection of this mine, previous to the first explosion, what were the condition of the doors, brattices, &c., in this mine?

A. I considered them in a very good condition.

Q. What was your ability as to the character and ability of the men in charge of the men at that time?



A. Very good.

Q. Did you have any reason to doubt their ability, as to sobriety, and as to their ability to manage a mine and care for them in general?

A. No, sir; I did not.

Q. What was the condition of the mine, so far as you could see, as to materials, for taking care of the mine, such as lumber, and all such materials as was needed in a mine of this kind?

A. I never saw any lack of material there; it seemed to be in abundance.

By Dr. Mitchell: Q. I would like for you to state whether or not in your opinion this mine was operated in violation of any law?

A. No, sir; I made a report that it was in compliance with the law.

Q. Now, as to the cause of the explosion, please state to the jury the cause of the last explosion?

A. Whatever I might say is merely theoretical or speculative at the best. I saw one place to-day during the inspection we made to-day, that might have been the source of the explosion. It may have originated in that place. I found a windy shot in one corner room, and bodies had been found there, at least they had been found in the cross-cuts just below, and just as if they had gone in the cross-cut to retire from the shot, that is, from the force of the shot. There was a great deal of heat in evidence, on the sides and all through that section. That is in No. 5, room 21.

By Mine Inspector Laing: Please mark that on the map with a red letter Mr. Stow. (Mr. Stow does so.)

A. There was considerable heat in evidence in this room, and in the adjoining room and also the forces, that is the exposures were worn off, in such a way that it would indicate that the force had gone outward from that room, and separated and went in all directions from that point.

By Mine Inspector Laing: Q. Please state to the jury to what extent you found indications of heat more in that room than in other rooms that you visited in the mine?

A. I cannot say that I found more heat there than I found in one or two places, but in that place we found charred dust, and just directly opposite that place, it seemed as if the tamping from the hole had been blown out against projections there and lodged, and they were charred.

Q. I will ask you whether or not, Mr. Phillips, you made a careful examination of the coal on the bottom of that room from the face for fifty feet back?

A. I did, and ribs from the top to the floor.

Q. Did you make an examination of the coal on the floor?

A. No, not particular at the face, I did some distance back.

Q. Will you describe to the jury the nature and action of the flame that came from that shot, as its action, whether it would fly, roll or what it would do, coming in contact with the substance that it did, in your opinion?

A. I don't know that I can exactly describe that. I would have to draw on my imagination a little to do that.

Q. From your experience as a miner, in shots of a similar character, what would the flame from that shot do?

A. It would create a sort of a storm—a windy shot. I have been in a mine when a windy shot has occurred near me, and I have had to take hold of a prop very often to keep myself from being blown down by them, and if the heat extended out some distance from it, and raises the dust, it is just possible it may have ignited it.

Q. Was there any indication that there had been other shots than that shot fired in that room, at that particular time?

A. I think not.

Q. Then as I understand, is it your opinion, or not, that the origin of the last explosion in this mine, that that was the origin of the explosion, or not?

A. It may have occurred there.

Q. Was there any indication that it did occur there?

A. It is the most likely place that I saw.

Q. What, in your opinion assisted that shot, if it did occur there, in causing the destruction that was caused in the mine at that time, if anything?

A. It raised the dust, such dust as had lodged about. In machine mines, it is my opinion that there is a fine dust floating in the air at all times, in quiet places and it lodges on the projections, and that assists in the explosion once it is started.

Q. With the volume of air traveling in a thick mine that was traveling in this mine previous to either of these explosions, would there be any dust distributed in crevices, holes or sides?

A. I believe there would, except perhaps there would not be perhaps as much of it.

Q. In going around this mine was this dust visible to you previous to the explosion?

A. This fine dust that I speak of?

Q. Yes, sir; on the ribs and sides?

A. No, sir; it wasn't particularly noticeable.

Q. Was it any more conspicuous than it is in a thick mine, to your vision?

A. I cannot say that it was, for the reason there wasn't sufficient of it to attract my particular attention to it.

Q. Then when you made the statement that there was more dust along the ribs and sides of this mine, because of it being machine mined, it is theoretical or to the best of your ability?

A. Yes, sir.

By Delegate Mitchell: Q. Do you mean to convey to the jury that it is your impression that the origin of the explosion occurred in room No. 21, and that it was aided by the fact of the intensity of the heat at that particular place?

A. By the intensity of the heat from the windy shot.

Q. That was absolutely visible there, I mean?

A. Yes, sir; I think that would be one indication, and another one to me is the fact that the force had gone down from that point and seemed to have increased as it spread out from that point.

Q. At the entrance of this room was there a parting of the force as it passed out?

A. It seemed so to me, yes, sir.

Q. There was evidence of that fact, was there?

A. Yes, sir; the projections were worn off in several directions there.

Q. Is it not a fact that the ignition may occur at one point and the intensity of heat be much increased at another?

A. Yes, sir; that is so; you will find it to be so.

By Mr. Strother: Q. You had made inspections of this mine previous to the first explosion, I believe as a mine inspector?

A. Yes, sir; my last inspection was August 26th, 1908.

Q. And in that instance you had no adverse criticism to make of the mine?

A. I don't recollect, but I think I made some recommendations in regard to that mine, perhaps on one or two occasions, but I don't remember as to that.

Q. There was a copy of it presented here at the last inquest, wasn't there?

A. That was a copy of the certificate, but not of my recommendations.

Q. I mean of your report of your inspection?

A. I made no recommendations on the last inspection.

Q. If you made any recommendations, they followed them did they not?

A. If they were made, I think they have a record of them here.

Q. That meant, if that was true, if you made no adverse criticisms, that you consider the mine in good shape in all particulars?

A. Yes, sir.

Q. And that you found at your examination, no dangers?

A. No, sir.

Q. And you found no dangerous practices, or any violations of the mining laws?

A. None that I observed at all.

By Judge Holt: Q. Just one question. The room which you have described as being the possible or theoretical source of the trouble was 21 on entry 5-1. I believe?

A. Yes, sir.

Q. Where you saw evidences of this windy shot?

A. Yes, sir.

Q. Please tell the court and jury whether or not that coal had been undercut?

A. It had been undercut.

By Mine Inspector Laing: Q. Please state to the jury, whether or not you found to-day in any part of the mine that you examined on your final examination of the mine to-day, any part of this mine where the men were shooting from the solid?

A. I didn't observe any to-day.

Q. Would you please describe to the jury on that map, the course of destruction from 21 room for 300 feet on each side of 21 room, to the best of your recollection?

A. It seemed to have come out to the entry 5-1, and to have divided there, part had gone up towards the connection with 8 cross, and the other part had come down to the new main, and had gone froward in this direction towards the head of the entry, and seemed to have lost force part of the way down in here, down into 10 cross.

Q. Is that going in the direction of the part of the mine, where the first explosion was?

A. Yes, sir; to the other part here, it just continued out into 8-1 entry. In other words it had expanded at this point here, part going in that direction and the other coming down here to the main entry (indicating on map.)

Q. Will coal dust explode in a mine, in your opinion?

A. It certainly will.

Q. Do you believe, or not, that coal dust added to the force of this explosion?

A. It did.

Q. Is dust of the character that you now speak of, always visible, or not?

A. I think not always, no, sir.

By Mr. Strother: Q. I understood you to state in answer to Mr. Laing's question, that you told the general mine foreman on Tuesday January 5th, that the mine was in condition for him to put men in the new part to mine coal, and in the old part, or where there was the greatest evidence of the explosion of December 29th, to clean up?

A. Yes, sir.

Q. You did not mean to convey the impression, did you, that those orders were not complied with by the mine foreman?

A. No, sir; I did not.

By Mine Inspector Laing: Q. Did you, or not, have any conversation with the management of the Pocahontas Consolidated Collieries Co., previous to the last explosion, with reference to the parts of the mine that might be worked, and the parts of the mine that might not be worked with safety?

A. I did.

Q. To the best of your knowledge, was there any men working in any part of the mine, that you thought there was any danger in?

A. No, sir.

Q. Please state, how in your opinion, dust in a mine should be watered for the purpose of taking care of the dust, to keep it from becoming an explosive mixture, and make it so it would not explode from a windy shot?

A. I can best answer that question by explaining how I advise the mine foremen as I go in and out of the different mines. I usually advise them, not to allow the roadways to become dusty, that is, to water them before it becomes dust, because afterwards it is almost next to impossible to water them, it doesn't absorb it very fast.

Q. I want to ask you whether or not, in a pool of water you have seen dust lying on top of a pool of water an inch or an inch and a half thick, and when stirred by your foot or a club, or anything else, of the dust on such occasions would rise and float?

A. That is a very usual thing that I encounter.

Q. Then dust, in your opinion will float on top of water?

A. Yes, sir; it will.

By Mr. Strother: Q. When were you informed of this last explosion, and how and by whom?

A. I got off No. 15 at North Fork. I cannot tell you exactly the time, but I think it reaches there at 9:20 and I was met there by the dispatcher and he told me they had been enquiring for me from Lick Branch, and that there had been another explosion there, and they permitted me to ride a freight engine up here.

Q. And you were at the scene in an hour or something like that afterwards?

A. Yes, sir; something like that, after it occurred.

Q. After you arrived at the mine on the 12th, did you take charge of the situation?

A. I did, yes, sir; it was turned over to me by the officials of the mine immediately upon my arrival there.

Q. And you were accorded any and all assistance that the mine management could give you?

A. I never asked for anything that they didn't make an effort to get for me, or to do for me.

By Delegate Mitchell: Q. Is it possible for the liberation of free hydrogen to occur by reason of the saturation of dust by water, where there is a marked trace of sulphur, so as to decompose the water?

A. You mean whether the sulphuric acid would have any action on it?

Q. Yes, sir.

A. I am not sufficient of a chemist to say whether it will, or not, but I have read it will do so, it will liberate it when water comes in contact with sulphur. That is the question you asked me, isn't it?

A. Yes, sir. Under these circumstances then, a windy shot would readily add to its heat by reason of the inflammability of the hydrogen?

A. Yes, sir; if it comes in contact with hydrogen.

By Mr. Strother: You don't mean to say that that condition obtained here?

A. No, sir; for the reason that there was no water there at the point I referred to here, and which I believe to be the point of origin, there was no water there—it is a high point.

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T. B. DENNEN, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of T. B. Dennen.

Examination by Mine Inspector Laing:

Q. Where are you from?

A. From Pocahontas.

Q. Do you live there?

A. Yes, sir.

Q. What is your business?

A. Mine Inspector for the Pocahontas Consolidated, in that State.

Q. Is that the same Company which operates the Lick Branch mine?

A. Yes, sir.

Q. Is it your business to inspect the Lick Branch mine?

A. No, sir.

Q. Are you a mining engineer?

A. No, sir.

Q. How much experience have you had in mines?

A. I have worked in them for 33 years.

Q. In what capacities?

A. All the way from laborer, miner, fire boss, mine foreman, mine superintendent, and inspector.

Q. Where have you worked in the capacity of a fire boss?

A. In the anthracite field.

Q. In Virginia?

A. No, sir, in Pennsylvania.

Q. How many years did you act as fire boss?

A. One year.

Q. Are you a certificated man from the State of Pennsylvania, as a mine foreman, or not?

A. Yes, sir.

Q. What class certificate do you hold?

A. First class.

Q. Did you ever work in the capacity of mine foreman in Pennsylvania?

A. Yes, sir.

Q. In what mine?

A. Luckyfiddler Colliery.

Q. What county is that in?

A. Northumberland.

Q. Was that a gaseous or non-gaseous mine?

A. A gaseous mine.

Q. Was it a shaft or drift?

A. Shaft and slopes.

Q. What was the nature of your coal?

A. Anthracite.

Q. Did that coal give off dust?

A. Yes, sir.

Q. Did you ever work in the capacity of mine foreman in West Virginia or Virginia?

A. Yes, sir.

Q. How many years?

A. I have been a mine foreman in Virginia for about two years.

Q. In what mines?

A. West Mine that is operated by this Company.

Q. How long have you been occupying your present position?

A. About one month, the last time, and four years previous to that.

Q. What were you doing previous to coming here as an Inspector for the Pocahontas Collieries Company?

A. I was a mine foreman.

Q. Of what mine were you the mine foreman previous to taking your present position with the Pocahontas Consolidated Collieries Company?

A. Mine foreman at the Glen Allen mine—I opened that up.

Q. Where is that?

A. Between Warrenclip and Gray.

Q. In Virginia or West Virginia?

A. West Virginia.

Q. How long were you there?

A. Eleven months.

Q. Was that a gaseous or non-gaseous mine?

A. A non-gaseous mine.

Q. Have you ever been in the Lick Branch mine?

A. No, sir, only during explosion times.

Q. Were you in the Lick Branch mine between the first explosion and the last explosion?

A. No, sir; only finished up the explosion and then went back to Pocahontas, and then returned when they had the next one.

Q. Were you in the Lick Branch mine between the 29th of December, 1908, and the 12th of January, 1909?

A. Only at the end of the last explosion.

Q. What were you in that mine for?

A. To assist in getting out the men.

Q. Did you familiarize yourself with the conditions of the mine during that time?

A. Not generally, no, sir.

Q. Do you know how the mine was ventilated previous to the explosion?

A. Only from what they told me, that it was ventilated by a fan.

Q. And in what way did it have the wind, a continuous current or was

the ventilation split into separate parts of the mine, and the mine ventilated in separate splits?

A. During the time I was in there, the mine was one continuous current, when we were getting these men out of the mine, taking it in at the new drift and returning it to the fan.

Q. The largest volume of air was going in at the new drift then?

A. Yes, sir; I believe that is what they call the new drift.

Q. In what part of the mine did the explosion occur, in your opinion, on the 29th of December?

A. The explosion seemed to extend to the lower part or towards Tug River side.

Q. How far up towards the new drift from the Tug River side, did that explosion extend?

A. I disremember the names of those places. I believe my first workings in that mine was on 11-2 after the first explosion, on the night shift, along through this country here (indicating on the map.)

Q. And how far towards the new drift from that point did the explosion, in your judgment, extend?

A. At that time the forces of the explosion, as near as I can remember, seemed to extend up towards what they call 5-1, that is, there was a disturbance at that point, tracks tore up and ties thrown around, and cars thrown off the track, and everything like that.

Q. And from that point towards the new drift what was the condition of the mine?

A. It didn't seem to be disturbed at all.

Q. Did you find any doors in that mine that were disturbed by the first explosion? Or undisturbed by the explosion, either one?

A. Not to my knowledge, none undisturbed.

Q. Were you in all parts of the mine?

A. No, sir; on the opposite shift, I wasn't in where they were.

Q. In your visitation of the mine after the explosion of the 29th of December, 1908, was it your judgment that an explosion occurred in all parts of the mine, or was it a local explosion?

A. I considered it a local one.

Q. Please state again where the air was being taken into the mine, when you came to the mine?

A. It was taken in at what they call the new drift, I believe that is the name of it.

Q. The men working in the new part of the mine, on coal, shooting and loading coal, and the men working on dip B, and the dip entries, at the point of the first explosion, which you say was a local explosion, if they were working at that part of the mine, cleaning up the slate, and putting up brattices, and re-establishing the ventilation, &c., cleaning up the dust, and causing more or less dust to float with the air current, would that, or not, endanger the lives of the men working in the new part of the mine?

A. I don't quite understand that question—have you reference to this last explosion?

Q. No, sir; I have reference to previous to that explosion. I want to know, in your judgment, whether or not men working in that part of the mine that did explode at the time of the first explosion, whether the men working there, cleaning up that part of the mine, cleaning up the dust and slate, and putting up brattices, re-establishing the ventilation, and doing such as was necessary to put that part of the mine in preparation to be operated again, would that dust come in contact with the men working at the coal in the new part of the mine, or in any way endanger their lives?

A. Not if they were on the return air-way.

Q. I would ask you whether or not, they could be in the intake, beyond where the men were working on coal, if they were working in the part of the mine that exploded in the first explosion?

A. According to the ventilation then, if they were working, as I understand

this ventilation, the whole return came back down and around this way to the fan (indicating on the map.) If the men were working here—

Q. I would ask you first, if you were positive that that was the way that the current was coming?

A. I don't know.

Q. You were, in there, weren't you?

A. All I know is this, that the air was taken in there (indicating on map) and distributed around this way (indicating on map.)

Q. And delivered where?

A. And delivered around to the fan in here (indicating on map). Now, I don't quite catch your question. Do you want to know if the men working in this part of the mine (indicating on map), the old section where the first explosion was, would be affected, if anything would occur in this new part of the mine?

Q. No sir, that is not it?

A. Then I fail to understand your question.

Q. As I understand, this part is the new part of the mine (indicating).

A. That is what I call it.

Q. Were you in any entry on this part of the mine after the explosion?

A. We started in on S on 3 cross right here.

Q. You say this was a local explosion?

A. Yes sir.

Q. And it expended itself about in here (indicating).

A. Yes sir.

Q. What I want to know is, if I was mining coal back on the first left entry, or in that first cross off first left there, or in any of these entries in here, or along in 21 room from 5 here, if I was working at coal in any of those places, and that ventilation was coming in that way, as you say it did come in when you were here, now then, if you were working in this part of the mine where the first explosion occurred, cleaning up the dust and slate, &c., in this part of the mine, and the current was traveling from here around here and this way, and back down here and through there to the fan, by you working down in here, cleaning up that dust, slate, &c., would that dust come in contact with me working up in here or in any way endangering my life?

A. No sir, that would be on the intake.

Q. Then the men working, cleaning up the dust here, the dust that they made would not come in contact with any person until it was discharged at the fan, would it?

A. No sir.

Q. Were you through any portion of the mine, which led you to believe was the point of the last explosion, on last Tuesday—I mean where the explosion originated?

A. The most positive place that I seen was room 21. It looked there on that rib as though there had been an overcharged hole.

Q. On what entry?

A. 5-1, it looked as if there had been an overcharged hole there, and the indications of that overcharge was the coal was thrown to the opposite rib, and also thrown to the breakthrough, and one large solid lump thrown there, but whether that was the origin of the explosion or not, I don't know. It was the most positive thing I saw in the mine so far as I went.

Q. Did you see any reason that led you to believe that there had been any certain amount of flame or heat in 21 room?

A. Yes sir, there was some heat in 21 room—the ribs showed that.

Q. Did you examine the bottom?

A. No sir, the ribs showed heat along down both ribs.

Q. How far back did that heat extend from 21 room?

A. It extended back to that breakthrough, as far as I saw it, that was between 30 and 40 feet back.

Q. In your judgment was there anything that exploded there except that powder?

A. Not that I could see. I wouldn't think it was anything but an overcharged hole, that caused that heat in there.

Q. Do you think the powder from that overcharged hole caused all the charred coal that you saw in there?

A. Yes sir.

Q. You think that powder was the only thing that exploded in there?

A. It was the only thing that I could see.

Q. You say you were not through the new part of the mine?

A. No sir.

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P. A. GRADY, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of P. A. Grady.

Examination by Mine Inspector Laing:

Q. Where do you live?

A. Huntington, W. Va.

Q. What is your business?

A. I am a District Mine Inspector for the State of West Virginia, 12th district.

Q. How old are you?

A. 29.

Q. Where did you live before you came to Huntington?

A. Williamson, West Virginia.

Q. What did you do there?

A. I was a Mine Inspector while living in Williamson.

Q. Who for?

A. For the State of West Virginia.

Q. How long have you worked in mines?

A. About 20 years.

Q. In what States have you worked in mines?

A. Pennsylvania and West Virginia.

Q. In what capacities have you worked in the mines of Pennsylvania?

A. I started as a trapper, and I worked up to fire boss.

Q. In what mines were you fire boss in Pennsylvania?

A. No. 20 Colliery of the Lehigh and Wilkesboro' Coal Company.

Q. Did you have a certificate as mine foreman from the State of Pennsylvania?

A. Yes sir.

Q. What class certificate, did you have?

A. First class.

Q. Did you ever act as mine foreman in the State of Pennsylvania?

A. No sir.

Q. How long have you been in the State of West Virginia?

A. Four years.

Q. What did you do when you first came to West Virginia?

A. I was a fire boss.

Q. How long were you fire boss in West Virginia?

A. Nearly three years.

Q. In what mine?

A. Bottom Creek Coal and Coke Co. at Vivian, West Va.

Q. How long have you been a State Inspector for the State of West Virginia?

A. Since July 1st, 1907.

Q. What is your district in this State?

A. District 12.

Q. Have you been in any mines in the 10th District?

A. Yes sir.

Q. What mine?

A. The Lick Branch mine.

Q. When was your first visit to the Lick Branch Mine?

A. On the night of December 29th, 1908, as near as I can remember.

Q. For what reason did you go to the Lick Branch Mine?

A. I was called there, or asked to go there by Mr. Phillips, on account of an explosion which occurred that day.



- Q. What did you do; did you work on the rescue party during that time?
- A. While the brattices were being gotten, I worked on the rescue party.
- Q. After all of the bodies were taken out of the mine, after the first explosion, have you been in the mine since that time?
- A. Yes sir, I spent three days in the mines after the bodies had been recovered.
- Q. That was between the two explosions?
- A. Yes sir.
- Q. In going over the mine after the first explosion first I will ask you, was the explosion that occurred on December 29th, a general explosion all over Lick Branch Mine, or a local explosion?
- A. I would consider it a local explosion?
- Q. What part of the mine was affected by the explosion of December 29th?
- A. The workings off 11 cross entry.
- Q. Any others?
- A. The forces of the explosion spent itself through the workings outside of 11 cross entry.
- Q. In what directions?
- A. In an out-by direction, that is towards, it would be called Turkey Gap opening, and the new drift main entry opening.
- Q. Where is the Turkey Gap opening?
- A. It is the opening at which the fan is located, and nearer to Turkey Gap.
- Q. Is there any other opening besides those?
- A. There is what they call Tug River opening, and the new main drift opening.
- Q. Was the explosion on December 29th very destructive compared with other explosions of a similar character?
- A. No sir.
- Q. Were you through all parts of the mine at that time?
- A. No sir.
- Q. Have you been through all parts of this mine at any time?
- A. Since the first explosion occurred, I believe I have covered all the mine.
- Q. Did you cover all of the mine between the first explosion and the second explosion?
- A. No sir.
- Q. Did you cover all the new part of the mine?
- A. No sir.
- Q. How much of the new part did you cover?
- A. In recovering the bodies from the first explosion, and restoring ventilation, I would say S-1 entry was the only part of the new workings which I covered, that is, including going in the new main entry.
- Q. On your visit to the Lick Branch Mine, previous to the last explosion, did you consider the Lick Branch mine a dangerous mine from dust, or did you not consider it a dangerous mine, so far as dust was concerned?
- A. Is that after the first explosion?
- Q. Yes sir.
- A. Yes sir, I would consider it a dangerous mine from dust after the first explosion.
- Q. What parts of the mine would you consider dangerous?
- A. I would think the agitation caused by the first explosion would render it more dusty than it had been previous to the first explosion.
- Q. In going around the mine, and the parts of the mine that did not explode with the first explosion, were there any visible signs of dust in quantities that in your judgment were dangerous?
- A. Yes sir.
- Q. Please describe what parts?
- A. The agitation caused by the first explosion, made the dust going up S-1 entry dangerous.
- Q. Could that dust be removed or made safer, or could it not, before starting up that part of the mine again?
- A. Yes sir, I think it could be made safe.
- Q. In what way?

A. In removing as much of the dust as it would be possible to remove, and sprinkle thoroughly what remained.

Q. Do you know whether or not, that dust was sprinkled with water since the last explosion?

A. I don't know.

Q. Do you know whether or not, there was any men at work there in the mine, working on coal since the first explosion?

A. I have been so informed, and judging from the way the bodies were found, I would say the men were mining coal.

Q. If in those places, in your judgment, the dust had been loaded out, and there had been water hauled in there, and thrown and distributed in that part of the mine before the men were permitted to load coal, or put off any blasts, would you then consider the places safe, as to dust, or not?

A. If certain precautions would be taken in the manner of mining and shooting coal, I would think the mine would be practically safe to resume operations.

Q. Please state those conditions under which you would consider it safe to begin the mining of coal again?

A. I would consider it safe to prohibit heavy charges of powder from being fired, and not to fire those charges of powder when dust would be thought to be in the atmosphere of the mine from the cutting of coal. In other words, to allow a certain length of time to elapse after the place had been cut by machines, until the shot would be fired.

Q. Anything else?

A. That is all.

Q. Have you been in that part of the mine since the last explosion?

A. Where they were mining coal?

Q. In that part of the mine that you just spoke of on one A?

A. Yes, sir.

Q. Did you notice whether or not that showed signs of having been wetted, or watered, since your last visit, previous to this last explosion, or not?

A. I would think that would be a matter that would be hard to determine after an explosion.

Q. For what reason?

A. The heat generated by the explosion would put it in a dry condition.

Q. In such parts of the mine as you have been in, that you have reason to believe that men worked in, working at coal, since the first explosion, have you seen any parts of that mine where men had put off heavy shots or blasts, such, as in your judgment, would cause an explosion?

A. Yes, sir.

Q. Please state what places, Mr. Grady?

A. In the nature of the coal and the way I found shots placed, I would say in all places where the miners were working, heavy charges of powder were fired.

Q. You are speaking now of any places you found men working in since the last explosion, and on your visit around the mine since the explosion on the 12th of this month, and such places as you have been in the mines since that time, where you had reason to believe that men were working at coal, have you seen heavy charges or holes that looked like there had been heavy charges, and powder explosion in these holes?

A. Yes, sir, one place in particular suggested itself as a very probably place in which a heavy charge of powder had been fired.

Q. Where was that place?

A. The place I referred to as room 21 off 5: 1 entry.

Q. Please state to the jury what the results were, in your judgment, of that charge?

A. The face of the coal showed that the charge had been fired over to the right of the rib of the room some coal had been blown and from the indications of that coal, I would say that a heavy charge of powder had been used in blowing it down.

Q. Were there any indications there that that hole had been fired on the solid, or was that coal undermined before that shot was fired?

A. The coal had been undermined before the coal had been fired.

Q. Did the hole appear to be fired by a man who understood explosives, or not?

A. In my judgment the man showed ignorance of explosives.

Q. Is there any part of the mine that you have been in that you would have reason to believe was the origin or cause of the explosion that occurred on January 12th?

A. This room that I have just referred to suggested itself as the most probable point of ignition.

Q. Please state your reasons for so thinking?

A. On account of this being a windy shot, it would generate sufficient heat to cause ignition of any dust that might be in the atmosphere of the mine.

Q. State how far those forces traveled from that shot in your judgment, and what effect it had on the sides and tops of coal, and whether or not it showed any signs of heat or coking, or anything of the kind?

A. Near the faces of this place, the ribs were coked. The bottoms also showed signs of coked dust.

Q. How deep was the coal coked on the bottom?

A. I would think it would vary in different parts of the room.

Q. Was there, in your judgment, anything in there that exploded besides the powder that was used in the hole, or ignited in there?

A. The powder exploded first and the dust ignited from it.

Q. Will you please state to the jury how dust will explode from a blown-out shot?

A. When dust is in suspension in the atmosphere of the mine, and a blown-out shot comes in contact with it, or the heat generated from a blown-out shot, it distills the carbon, or gases contained in each particle of coal dust. This carbon joining with the oxygen—the atmosphere of the mine, produces explosive gas.

By Judge Holt: Q. What do you call that gas?

A. The analysis shows it to be a mixture of nearly all known explosive gases, such as hydrogen, methane, marsh gas, C. O. gas.

By Mine Inspector Laing: Q. Please state to the jury what you mean by C. O. gas?

A. C. O. gas is a mixture containing one atom of carbon—

Q. Give its proper name?

A. Carbon monoxide gas.

By a Juror: Is C. O. gas, equal parts of carbon and oxygen?

A. Yes, sir.

By Mine Inspector Laing: Q. Please go on and state whether or not that dust ignited in that form will increase in force and volume as it travels, or will it decrease until it meets with resistance either from water or by being exhausted on the outside of the mine?

A. That would depend entirely upon the combustible elements supplied to the original flame. If it would meet with a plentiful supply of dust, and a strong ventilating current, and a plentiful supply of oxygen, it would increase in intensity and force. If it followed a certain air current where it consumed the oxygen in the air, it would decrease in force.

Q. Then it is more liable to force under these conditions—would it go towards the discharged air, or would it go towards the intake air?

A. That is a point that has not been definitely settled in my mind, as to what direction it would go.

Q. Under the present circumstances, as you found conditions in this mine after the first explosion, and you have reason to believe that the last explosion occurred in 21 room, which way did that explosion travel?

A. The greatest forces, I would think, would travel going with the air current.

Q. From that point would that be going towards where the men were working on coal, or not?

A. It would go towards the greater number of men where working on coal.

Q. Since the first explosion?

A. Since the first explosion.

Q. Were you through all parts of the mine where the first explosion was?

A. Yes, sir.

Q. Please state to the jury in what part of that mine it was, in your judgment?

A. The part affected by the first explosion was the upper part of the old main workings, the dip workings off the old main workings and one entry off of 11 cross entry.

Q. From your experience in this mine, Lick Branch Mine, and your experience in mines generally, the part of the mine that did not explode on December 29th, 1908, would you have reason to believe that that was a dangerous part of the mine for an explosion, after the first explosion again?

A. The agitation caused by the first explosion would render the dust throughout most of the mine in a finer and more dangerous condition.

Q. Now, Mr. Grady, according to the evidence you have just given on your theory of explosions and the forces that explosive dust gets to under certain temperature, would you please state why, if that part of the mine was in a dangerous condition after the first explosion, why it did not explode with the force you say was in there at the first explosion?

A. I do not think the conditions were suitable throughout the mine to have a general explosion at the time of the first explosion.

Q. You have just stated that coal dust gained in volume and force after it was once ignited, either from gun-powder or gas or from any other source, as I understand you?

A. Yes, sir.

Q. Now then you make the statement that this dust was so stirred up from the first explosion and distributed over the other part of the mine, as to make it explosive. Now, what I want to know from you is, that you have had an explosion in a certain part of the mine previous to the last explosion?

A. Yes, sir.

Q. You had all the gases in there for a second explosion, that you have described in your former evidence. Now then you make the statement that this part of the mine that did not explode after the first explosion was made in a fit condition to explode from it. Now, if it could be made in a fit condition to explode now, after the mine had exploded, I want you to explain why it did not explode with all the heat and force of the first explosion was in there, of which you witnessed for three days, after the first explosion?

A. The first explosion would cause a concussion of the air current. The mine being filled with air, when the body current would be moved it went down, and it would cause a movement at the other point, and the movement at the other point would depend almost on the velocity at which it would move at the seat of the explosion. That is, an explosion originating in one point of the mine, might consume the coal dust and other combustible elements present, and then spend itself in the section affected and be prevented from traveling throughout the mine, because there would not be sufficient dust present to propagate it throughout the mine.

Q. Please state whether or not, the same conditions did not exist there where the first explosion spent itself as to where the point of origin in your judgment, originated for the second explosion?

A. The greater forces spent itself before it reached the point of the second explosion.

Q. Please explain why it did not travel clean back to the new driftmouth and explode in all parts of the mine as that was on the intake, and you have every reason to believe, as I understand you, that there was sufficient oxygen traveling in that part of the mine to assist in that explosion of the mine according to your theory. I want to know why there was any reason why the whole mine should not have exploded on the first explosion?

A. I think the reason it would not, was because the intervening area between the seat of the two explosions was too wet, and by being wet, it would not allow the infused particles of coal dust to be held in suspension between those two points.

Q. You do not believe in this mine that coal dust was carried in suspension all over the mine?

A. No sir, I do not believe it was.

Q. Do you believe, or do you think, that the part of the mine between the two areas of this explosion, between the two explosions, was any more wet than the part of the mine that did explode on the last explosion?

A. Yes sir, there is water in numerous places in the intervening area between the seat of the two explosions.

Q. Is there water on the roof and sides of those places?

A. After the first explosion, I found the roof and sides of those places in a damp condition.

Q. I ask you whether the parts of the mine that you have been through to-day, is there water in those parts of the mine, or not?

A. In what parts?

Q. That you have been through in the mine to-day?

A. Yes sir, I have gone through water to-day.

Q. Did it exist there in that part of the mine between the two explosions?

A. No, sir.

Q. Did the explosion from the point of origin that you have represented, travel over this wet points and run back from those points back into the other points that was equally as far from the point of ignition or origin, as it was from the point of origin of the last explosion of a similar distance?

A. The force spread over a greater area, but I believe the flame of the explosion did not.

Q. Then as I understand you, the mine is so damp from the dip B. entries, and what is known as Italy to us, points between that and eight first is so damp as to prohibit an explosion traveling from one or the other parts of the mine from that section, and explode the other part of the mine?

A. I believe it is.

By Judge Holt: Q. What is your mine inspection district?

A. It includes the counties of Mingo, Logan, Wayne, Lincoln and Cabell.

Q. Do you know the cause of this second explosion, or is it a theory with you, based more or less on evidence?

A. It is a theory substantiated more or less by the conditions found.

Q. Then as I understand, you cannot state to the exclusion of a doubt, the source of the explosion?

A. Yes, sir.

Q. You are positive then that it originated in room 21?

A. As to the point of origination, I am not positive.

Q. That is the question I asked you—then you have a doubt upon that subject?

A. I have a doubt upon the point of origination. I have no doubt that an explosion occurred in the mine.

Q. You believe an explosion did occur in the mine?

A. Yes sir, and I have no doubt there was certain elements present that propagate that explosion.

Q. The question I meant to ask you, and maybe I did not make myself clear, was whether you know positively where this explosion originated?

A. I am not positive of the point.

Q. You cannot be sure about that?

A. No, sir.

Q. You found stronger indications of it, however, in room 21, off of entry 5-1?

A. Yes, sir.

Q. You found stronger indications of the origin there than at any other point?

A. Yes sir, than at any other point in the mine.

Q. And you have described these indications as a blown-out shot, or an overcharged hole?

A. Yes, sir.

Q. Tell us please, the difference between an overcharged shot of powder and a windy shot, and what is the effect of one and what is the effect of the other?

A. A windy shot is a shot fired where the powder does not expend all its energy in breaking the coal.

Q. Does it blow the tamping out?

A. Sometimes it blows the tamping out, but when the tamping alone is blown out, it would be classed as a blown-out shot, when it finds the line of least resistance through some part of the coal and expends the energy in the atmosphere of the mine, it is classed as a windy shot.

Q. Now that might occur even with a small charge of powder, might it not?

A. Not with a properly placed and well tamped hole.

Q. Suppose the hole had been sufficiently tamped to make the powder seek some other outlet than the hole that had been filled with the tamping, if the tamping were sufficiently good to prevent the escape by that direction?

A. The powder then should exert itself.

Q. It would perform its function?

A. Yes sir, I would say it would.

Q. If the tamping were not blown out, it would blow the coal down?

A. Yes, sir.

Q. Isn't that the object of the shot?

A. Yes, sir.

Q. What is wrong then with that character of shot, if it does not come out of the hole you put it in, if it goes out through the coal and brings it down, what is wrong with that shot?

A. There may be more powder used in that shot than is required to bring the coal down, and when it is used in this way, it will expend its energy in the workings of the mine, in the air current or atmosphere of the mine.

Q. Now, you were at the explosion that happened on the 29th day of December, 1908, or you came here that day, I believe?

A. Yes, sir.

Q. And how long did you remain?

A. I came here on the evening of the explosion, and entered the mine at 9 o'clock?

Q. That night?

A. Yes sir, and I came out at 9 a. m. the next day; re-entered Wednesday evening at six p. m. came out at 12 p. m. re-entered Thursday morning at 8 a. m. and came out at 5 p. m. on the day the last body was taken out. On Friday morning I re-entered about 8 a. m. and came out at 4 p. m. On Monday, Jan. 4th I entered about 8 a. m. and came out about 4 p. m. in order to catch No. 1 and on January 5th I spent the same length of time in the mine after the first explosion.

Q. Then you were in the mine every day for a certain number of hours, from the date of the first explosion on the 29th day of December, 1908, down to the 5th day of January?

A. With the exception of Saturday and Sunday.

Q. Did you go into the mine between the 5th of Jan. and the 12th of Jan. the day of the second explosion?

A. No, sir.

Q. On what day was that second explosion?

A. January 12th.

Q. Then there was one week's time after the first explosion and before the second explosion, during which you did not visit the mine, that is, from the 5th to the 12—seven days?

A. Yes, sir.

Q. Can you recall what condition the mine was in on the 5th day of January, 1909, when you last visited it, after the first and before the second explosion?

A. Yes, sir.

Q. Had the ventilation been restored?

A. Yes, sir.

Q. Had the mine been cleared up?

A. No, sir.

Q. What was left undone in that respect?

A. There was electric wires down in certain parts of the mine, and broken

cars and wrecked cars left in other parts of the mine and debris deposited at different places in that mine.

Q. Do you know when they went in to work in the mine again for the purpose of mining coal, of your own knowledge?

A. No, sir.

Q. Do you know whether this debris had been removed before that time, or not?

A. No, sir.

Q. Do you know in what condition the mine was at the time of the second explosion?

A. No, sir.

Q. You don't know what the condition of the air was?

A. No, sir.

Q. You don't know what condition the brattices were in?

A. No, sir.

Q. And you don't know anything about the debris?

A. No, sir.

Q. Then the last you saw of the mine was on the 5th day of January, 1909, and at that time there was some debris left, and the current of air was restored?

A. Yes, sir.

Q. What repairs it underwent between that time and the second explosion, you don't know?

A. No sir, on Jany. 5th I left the mine, and the ventilation was restored temporarily as I understood it. It was not restored in a permanent manner—they intended making some changes.

Q. The fan was operating properly, was it not?

A. Yes sir, and there was a circulation of air in all parts of the mine.

Q. Was there any gas in the mine at the time you left it on the 5th day of January?

A. No, sir.

Q. It was clear of gas?

A. Yes sir it was clear of gases.

Q. What was its condition as to dust?

A. In the part of the mine affected by the explosion, the sides and bottom of the entries were getting damper each day after the explosion occurred.

Q. In other words, the mine was improving as time went on?

A. Yes sir, in the section affected.

Q. What about the other section?

A. I wasn't over in the other section.

Q. Now, the first explosion as I understand it, was a local one, and that was the part of the mine you visited and had gone through, and that you examined up to the 5th day of January, 1909?

A. Yes, sir.

Q. Now your judgment seems to be that this second one occurred in the other portion of the mine—that is, the portion you did not visit?

A. Yes, sir.

Q. You are unable then to tell the court and jury what the condition of the dust was in that portion of the mine at the time you visited it last?

A. Yes, sir.

Q. You cannot say whether it was dusty, or not—or whether it was dry or damp, or not?

A. No, sir.

Q. And you cannot say what the condition of the air at that point was?

A. No, sir.

Q. Do you know anything about the sprinkling that was done in that mine between the 5th and 12th of January, from your own personal knowledge?

A. No sir, but we found the bodies of the men who were known to be sprinkling, and the sprinkling car was near to where their bodies were found in there.

Q. And from those evidences you discovered that sprinkling had been going on—and you found those evidences after the second explosion?

A. Yes, sir.

Q. And the men seemed to have been killed while performing that duty?

A. Yes, sir.

Q. Was any State Mine Inspector left here at the time you went away on the 5th day of January, still observing this mine?

A. No sir, upon completing my investigation, I left by orders of Mr. Laing to inspect mines in other parts of the field, and Mr. Phillips, I understand, went to his home to make up his report of the first explosion.

Q. Did he come back here between the 5th and the 12th of January?

A. I don't know.

Q. You then cannot say of your own knowledge whether Mr. Phillips was here on the 11th, 10th, 9th, 8th, 7th, 6th or 5th of January?

A. No, sir.

Q. You cannot tell whether he was through the mine at that time, or not?

A. No, sir.

Q. Now, were you in S-1 entry between the two explosions?

A. Yes, sir.

Q. On what day were you in there?

A. Every day while I was in the mine after the first explosion.

Q. That then was the portion of the mine that was affected by the first explosion?

A. No sir, we carried our air current through this portion to conduct it to the place where the first explosion occurred.

Q. Now you say you found dust there—do you know what sprinkling was done there at that point afterwards, or what watering was done there?

A. No, sir.

Q. You don't pretend to know anything about that?

A. No sir, not afterwards.

Q. What was the extent of your examination on S entry—how far did you go?

A. In going through to the portion affected by the first explosion, we entered the new main driftmouth and passed up S-1 entry.

Q. To what point?

A. To the end of that entry and then from that point we crossed over to the workings on 11-1 entry or to 11 cross entry first and then down this entry to 11-1 entry. It was necessary for us to come up S-1 entry each day in getting to the affected portions until we made a complete circuit of the mine.

Q. Now, Mr. Grady, after the first explosion, did you not agree with Mr. Phillips that you would run the electric motor from the entry clear up to room 13 on S-1?

A. I believe I did.

Q. And was it not understood between you all at that time, you concurring, that open lamps could be used therein to that point with safety?

A. Yes, sir.

Q. This was immediately after the first explosion, wasn't it?

A. Yes, sir.

Q. When were you in that portion of the mine last, where you found indications to-day of the overcharge of powder, I mean room 21 on 5 entry. When were you there last before to-day if you were ever there before?

A. I never was there before.

Q. Then, wouldn't it be impossible for you to say what the condition of that locality of the mine was, with respect to dust, prior to this second explosion—you were never there before, as I understand you?

A. No, sir.

Q. Could you then, without ever having been at that point before this second explosion, tell the court and jury what its condition with respect to dust was?

A. Room 21 off 5 entry as you go in to the right, a body of water would hardly accumulate there. The shooting of coal in my opinion, would put in



suspension a certain amount of dust, and this windy shot occurring would furnish the heat to ignite this stuff.

Q. Well now you have never been there before?

A. No, sir.

Q. And as to whether there was dust there, or not, you could only tell by conjecture and supposition, isn't that a fact?

A. Conjecture and supposition only.

Q. You could just as readily suppose and conjecture, that there is a certain amount of dust unavoidably in every part of every mine in the world, couldn't you?

A. Yes, sir.

Q. And absolutely unavoidably so—all mines, in other words, produces some dust, doesn't it?

A. Yes sir, not saying as to what that condition as to dust was in.

Q. Do you know what condition that dust was in, if any there was, in that mine before this second explosion?

A. No, sir.

Q. You don't pretend to say?

A. No, sir.

Q. And you haven't pretended to say?

A. No, sir.

Q. Now, as a matter of fact, do you know when coal was last mined in room 21?

A. Judging from the nature of the coal and the position of the bodies found, I would say it was mined very near the time the explosion happened?

Q. Might it not have been done the day before?

A. To say that, it would have to be proven to me that those men found in that room did not belong there, and that that was not their working place.

Q. Then, you are judging the situation by the bodies that were discovered there?

A. Yes, sir.

Q. That is what I am trying to get at?

A. Yes sir, that is it.

Q. There is nothing to indicate to your mind when that shot was fired, whether on the day of the explosion or the day preceding, or the day before, that, except the location of the bodies there?

A. No, sir.

Q. There were no bodies in there when you went in there were there?

A. No, sir.

Q. If you then had not been told that a couple of bodies had been found at that place, or whatever number may have been found there, you would have had no evidence by which to determine whether that shot was fired within 24 or 48 hours, would you?

A. No, sir.

Q. Then, as I understand you, you do not know whether there was any dust in that locality, or not, except as an inference from the mining of coal, and from that, you would say there was dust at that point?

A. Yes, sir.

Q. And in what quantities you would not be able to say?

A. No sir, not prior to the explosion.

Q. Now, did you have a talk with Mr. Phillips with respect to the resumption of work in the new part of the mine?

A. No, sir.

Q. Were you here at any time when it was discussed between him and you or by him in your presence, with respect to the safety of going to work again in that portion of the mine?

A. No, sir.

Q. Did you, or not, concur with him, that the mining of coal might be safely resumed in that portion of the mine?

A. No, sir.

Q. You left on the 5th of January, I believe?

A. Yes, sir.

Q. And that matter was not discussed between you before your departure?

A. No sir, only that we talked over certain recommendations to be made as to protection, to prevent a recurrence of the explosion.

Q. Did you give any directions to any of the foremen, or manager of the mines, as to what should be done before work was resumed?

A. Not in an official way.

Q. You made no requirements then of that kind?

A. Not at that time. In my report to Mr. Laing I recommended that certain precautions should be taken. To him only.

Q. Not then to the management here?

A. No, sir.

Q. Now, in what portion of the mine, old or new, is this room 21, about which you have spoken, located?

A. It is in the new portion of the mine.

Q. And you do not know, as I understand you, in what condition that portion of the mine was immediately preceding the second explosion?

A. No, sir.

Q. And you don't know whether it was dusty, or not?

A. No, sir.

Q. And you don't know whether it was dangerous, or not?

A. Judging from the way the holes were drilled in the places in which men were found, I would say a dangerous condition existed.

Q. That was simply from drilled holes?

A. Yes, sir.

Q. I am speaking from dust now?

A. I don't know anything about the dust.

Q. Suppose there was no dust in the mine—did you find any gas—but I believe you said you had not examined that portion of the mine at all?

A. No, sir.

Q. Therefore, you don't know whether there was any dust or gas in there?

A. No, sir.

Q. Now, assuming that there was no gas, and no dust in there, what difference does it make how a drilled hole was put in?

A. I think that condition would be impossible.

Q. You think there is always some dust or always some gas in a mine, do you?

A. In a mine of this nature, yes, I think there is always a certain amount of dust.

Q. Was there any gas in it at all, that you ever discovered?

A. Not in a free state.

Q. Then, as I understand you, you won't pretend to say what was the condition of that mine with respect to that portion of the mine—I mean with respect to dust or gas—immediately preceding the explosion?

A. No, sir.

Q. But you have, after an explosion has occurred, found evidences of that windy shot?

A. Yes, sir.

Q. And that is all you can say about it?

A. Yes, sir.

Q. And to what extent there was sprinkling done, you don't know, or don't pretend to know?

A. No, sir.

Q. Did you discover a door up there, connecting the old and the new mine?

A. At what time?

Q. At any time?

A. After the first explosion I did.

Q. Did you discover it there after the second explosion?

A. No, sir.

Q. Were you at that point?

A. Yes, sir.

Q. Was it there?

A. I didn't notice it, no sir. If it was in the same position that it was in after the first explosion, I would have noticed it.

Q. There is one question I want to ask for my own information, and that is this, coming out of room 21 now follow for me please, the forces of that explosion?

A. Assuming that it originated at this point (indicating)—

Q. Lets don't assume lets get to what you saw—now follow the violence of it?

A. The violence of the explosion from the face of room 21 off 5 entry, shows one force going in the direction of the new main driftmouth. This particular force in going towards that point, spent some of it up 3 cross-entry, judging from the evidences along that entry. The other force from the point of origination shows itself going up to one cross off of 5, towards 8 cross and up 8-1, from 8 cross and 8-1 entry. The direction of the forces are towards the workings over to the old main entry.

Q. Did you find any other evidences of any other forces setting in at any of these points along the line?

A. Yes, sir.

Q. Where were they?

A. In different parts, there was a re-actionary force shown opposite to that of the greater force

Q. Were there evidences that a reactionary force had set in before the other had exhausted itself?

A. I couldn't say that it had.

Q. Then why would you call them reactionary?

A. Because one force shows itself going in one direction and in other places close by, we would find evidences that it had gone in the opposite direction.

Q. Which is the reactionary and which is the other?

A. The reactionary force I would class as the second force.

Q. How can you distinguish them?

A. Produced by the vacuum created by the first force.

Q. Yes, that would account for it, if you knew the fact, but how can you determine that?

A. Only by certain laws of physics.

Q. Give us one of them please?

A. When the air is consumed either by forcing it out of a body, either forcing it out by mechanical means, or by an explosion created in that body, the pressure of the atmospheric air has a tendency to force itself backward into those points.

Q. What are the evidences of their going out and what are the evidences of coming in to the mine?

A. Have I answered the question fully enough?

Q. The whole thing is conjecture, isn't it?

A. No, sir.

Q. And following uncertain evidences, as best you can, isn't that about all there is to it?

A. No sir, it is produced by demonstration.

Q. In what way now, have you demonstrated which was the reactionary, and which was the original forces, in this case?

A. When the explosion occurred it would cause an expansion of the air, which would force it out of the mine.

Q. And that is upon the supposition now, that that explosion occurred in room 21?

A. Yes, sir.

Q. Suppose it occurred some place else?

A. If there was an expansion there, which would have occurred when there was an explosion, it would force a certain amount of air out of the mine, and when that force of that explosion would spend itself, the weight or pressure of the atmospheric air would have a tendency to force it inwards again.

Q. Yes, that is true—I don't believe I care to ask you anything more, unless the jury desires to ask you something.

By Justice White: Gentlemen of the jury, do you desire to ask the witness anything.

All answer no.

By Delegate Mitchell: Q. What were the nature of the recommendations that you made to the Chief of the Mine Department, that were necessary precautions before operating the mine again?

A. I recommended in the first place that powder of less inflammability than black powder be used; that the coal in addition to being under-cut, should be either double-shot or sheared, so as to reduce the amount of powder used, and that the ventilation be conducted to the working places, to the working faces.

Q. In the event of a force of an explosion traveling along a certain entry, is it unreasonable to conclude is this not your conclusion at least, that it may be re-enforced at certain points?

A. Yes sir, I have reason to believe that an explosion is re-enforced at certain points.

Q. Under those circumstances, wouldn't this new explosion, its force be in every direction?

A. Yes, sir.

Q. Might not that possibly mark to a certain extent this old reactionary movement?

A. You could attribute it to that cause.

By Mine Inspector Laing: Q. What time should those recommendations reach the Charleston office of the Mine Department, that you spoke of?

A. I made an attempt to get them in on Saturday January 9th, but judging from the time I put the report in the post office, I do not think it would reach you before closing hours that day.

Q. Would the men cleaning up the dust and debris from the first explosion, if there was any men working in the part of the mine nearer the fan than they were working, would that endanger the men working at the coal or would the dust go in the direction where the men were working at the coal?

A. Not if the ventilation was conducted in the same way as it was when I left the mine on January 5th.

Q. And it is your judgment that an explosion occurring where the men were cleaning up or where the men were working at the coal, would not cross this wet section and affect one or the other—an explosion occurring at either point it would not travel to the other point. In other words, if an explosion occurred from the coal section, it would not extend over to where the men were cleaning up from the first explosion, would it?

A. No, sir; I would think not.

Q. But nevertheless it is a fact it did do it, isn't it?

A. I do not think the area of the flames reached there. The explosion did not reach that point, but the forces created by the explosion, where it took place, reached that point.

Q. The men whom you found cleaning up and putting up brattices in the old part of the mine, that is, where the explosion occurred, you found them killed, they didn't get out, did they?

A. No, sir.

Q. And was there any men found around near the Tug River opening?

A. Yes, sir.

Q. So that would show that wherever this explosion did occur, that it did traverse that point, didn't it?

A. Yes, sir, the forces did.

Q. These men that were found building that brattice, were they burnt?

A. I didn't see those bodies.

Q. Do you know the names of the men who were working in 21 room?

A. No sir.

CHARLES CONNOR, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Charles Connor.

Examination by Mine Inspector Laing:

Q. Where are you from?

A. You mean my present residence?

Q. Yes, sir.

A. From Norton, Virginia.

Q. What is your business?

A. I am keeping a hotel at the present time.

Q. What did you do before you began keeping a hotel?

A. I have been engaged in mining operations all my life up until four years ago.

Q. What was the last thing you did before keeping this hotel?

A. I was general manager of a coal and coke plant.

Q. At what point was that, and what plant was it?

A. At Glamorgan, Wise county, Virginia.

Q. You had charge of the mines and the whole proposition?

A. Yes, sir.

Q. How much coal were you producing?

A. It was just a new mine opening up, and we had built two hundred ovens, and kept them fired, and producing coal to fire them.

Q. What were you doing previous to that time?

A. I was General Mine Inspector for the Pittsburgh Coal Company in Pittsburgh, Pennsylvania. We had about 108 operations.

Q. What was your occupation previous to that time?

A. I was General Superintendent for the Dominion Coal Company in Nova Scotia.

Q. What were you doing previous to that time?

A. I was State Mine Inspector in Pennsylvania, in the 5th bituminous district.

Q. How long were you a mine inspector.

A. Eight years.

Q. And you had a State certificate from the State of Pennsylvania for a state inspector and mine foreman?

A. Yes sir, and fire boss as well.

Q. How long have you been working in and about mines?

A. I have been working fifty years.

Q. Have you ever been a fire boss?

A. Yes sir.

Q. Have you ever worked in the capacity of mine boss?

A. Yes sir.

Q. You have worked in all capacities there are in connection with the mining business, as far as bituminous coal is concerned?

A. I have worked in everything in the mining business from trapper boy to general manager.

Q. Have you ever visited the Lick Branch mine in McDowell county in this state?

A. I visited it on the evening of Wednesday the 13th of January.

Q. What was the cause of your visit there—what called you there?

A. I heard a report that there had been an explosion at that mine, and I came on as soon as I could get a train to come to offer what assistance I could in the recovery of the bodies, or do anything that might be necessary in any other way—to help the company to recover the bodies and be of general service in any way that was necessary.

Q. How many days or nights did you work at that kind of work?

A. Two nights—Wednesday and Thursday nights.

Q. During those two nights, in what part of the mine were you in—were you in the exploring party or the bratticing party, or what particular work were you engaged in during that time?

A. I was in the exploring party, along with the mine inspectors.

Q. Did you find any gas in any part of the mine, of any nature?

A. I did not find any gases of any nature except in one or two places, where we found some carbonic oxide or after-damp, where the air had not reached it, to eliminate it from the places.

Q. How did you get that out?

A. By putting brattices up to the face of the workings and forcing it out by ventilation.

Q. In what parts of the mine were you when you quit working in there?

A. I was in this part here, called Little Italy, as I understand it.

Q. That is the last work you did in there?

A. Yes sir, in this part here [Indicating,] on the air course.

Q. What did you find in there—after you did get in there, did you find there had been an explosion?

A. I found very much evidences of it.

Q. Had it been a violent explosion, indicating that it was universal—all over the mine, or that it was a local explosion?

A. It extended over every part of the mine that I visited.

Q. What was the condition of the mine, or in such parts of it as you went into, pertaining to destruction?

A. In some parts of it, it showed evidences of considerable force in the destruction of brattices and destroying cars, throwing them off the tracks, and the timbers being strewn along the entry.

Q. You don't know anything about this mine before this explosion, do you?

A. I never was in it before, and don't know anything at all about it previously.

Q. In your visit over the mine, is there any part of the mine, in your judgment, that this explosion originated?

A. So far as I had visited the mine, I did not find any place that indicated the origin of the explosion, except in one place.

Q. Please state that place to the jury?

A. That was in No. 21 room on the 5 entry.

Q. Please state the conditions and what led you to believe that the origin of the explosion was there?

A. From the charred state of the dust that was adhering to the coal and the ribs, which indicated great heat, to such an extent that it had distilled the coal itself and left coke or charred particles on the coal rib.

Q. Did you examine the top and sides of 21 room?

A. Yes sir, at the bottom.

Q. To what depth was this coal charred on the bottom and sides of that room?

A. On the sides of the rib portion there, where it would be there was a patch in one place about six inches long by about four inches wide and about one inch thick, plastered on the side of the rib. On the bottom where the coal dust was deposited for about nearly an inch in depth, the slack was practically coked.

Q. Now, without taking up time to ask you questions, I would like to ask you to explain to this jury, the force that that shot would give to an occasion of this kind, and the circumstances as you found them in there, without my asking you any questions at all, so far as you can. Go right along with your evidence and give your idea as to why the explosion occurred in that room?

A. The indications in that room pointed to an overcharged shot. The indications were that the coal that was shot down was thrown over to the opposite side of the rib. In going up the room the shot was on the left hand corner. The coal was thrown across the room over against the rib on the right hand side.

Q. Did it go over there with violence?

A. Yes sir, and evidenced to me that there had been an overcharge of powder in that hole, more than was necessary to simply blast the coal down. The effect of that was, that there was probably a great deal or a large per cent of that charge of powder that wasn't consumed in the blasting of the coal and was simply consumed by burning in the shape of flame. The compression of air produced by the blasting of the coal, by the shot, produced a vibration and a compression in the air, that would necessarily raise any dust that was in that room, which,

coming in contact with the flame that must inevitably have occurred, due to the overcharge of gunpowder, the temperature of that flame was sufficient to distill the coal dust that was raised in suspension by the vibration and the compression of the air by the shot, and that in turn would increase the temperature by distillation of more gases from the coal dust, and would produce greater expansion and consequently greater compression and necessarily greater vibration, and raised more dust as it continued, and in this way the flame would simply get fuel from this dust and propagate itself as it progressed.

Q. Now, I would like for you to tell the jury, at what temperature coal dust will be distilled into a state of combustion?

A. The temperature varies in different kinds of coal dust, according to the quantity of volatile gas that is contained in the coal. If there is a larger proportion of volatile matter in one coal than in another, the coal that has the highest volatile matter in it will necessarily be distilled at a lower temperature than coal that has excessive carbon in it and the temperature ranges in bituminous coals from about 700 degrees centigrade to 900 degrees, producing distillation. The range of ignition of the distilled gasses from coal dust is from 900 degrees to 1300 degrees centigrade.

The heat generated by an explosion of gunpowder will be about 2400 degrees; dynamite will be about 3000; gun cotton will be about 3500 and various forms of glycerine substances will vary in proportion from that temperature up until we have the pure nitro-glycerine, when we have a temperature of about 5000 degrees, or, in other words, we will have with an explosion of gunpowder a temperature largely in excess of that which is necessary to produce distillation and ignition from coal dust. In one case we will have a previous distillation nearly three-fourths more heat energy generated than is necessary to produce distillation, and in the case where we have an explosion why the temperature becomes so heated that we have about nearly twice the amount of temperature that is necessarily produced, or is necessary to produce ignition from the explosion of gunpowder itself.

Q. At what rate will that gather force as it travels?

A. It is pretty hard to determine that, but I should judge that the force would be practically as a square of the distance traveled.

Q. And where there is any coal dust at all in a mine in a case of that kind, it is natural to suppose it would sweep over the whole territory, wherever that exists, isn't it?

A. Yes sir. It must necessarily follow where the force is increased there must be a greater vibration, and consequently a greater disturbance, and force to put the dust in suspension as it went, that is where you have dry places. When you come to damp or wet places, as a matter of fact, the force would be less, because the dust would be less, but it may be and doubtless would be a sufficient amount of flame traveling with such velocity, that it would go over the wet places, on the other side of that locally wet place and there again it would continue the force.

Q. Would you please explain to the jury, any other sources or causes or signs in there, that would lead you to believe that that blown-out shot in 21 room was the origin of that explosion?

A. That appeared to be the initial point from which the forces radiated, judging from the course of the debris and the evidences of damage that was done to the brattices and the direction in which the stockings were blown out and the props were thrown around, and the manner in which the charred coal dust was deposited on the corners of the rib, from which it was traveling, and from the blowing down of doors and cars that were standing on the entry, and the direction in which they were blown.

Q. Everything indicated, in your judgment, that the origin of the explosion was in 21 room?

A. The direction of force led from that point in every direction.

Q. You are not sufficiently acquainted with the mine in general, to give an opinion as to whether you would consider this mine a dangerous mine from dust previous to this explosion?

A. No sir.

By Judge Holt: Q. Did you ever experiment with coal dust at all, as to its explosiveness?

A. No, not personally, I have not.

Q. Did you ever take a bucketful of it, or any amount of it at all and apply fire to it, or pour it on a fire?

A. Why, I have taken a handful of dust between my fingers and dropped it on to an open light, and have noticed that it would inflame very rapidly.

Q. What is the difference between ignition and explosion—a shaving will burn quickly, wont it?

A. Simply a question of the degree and the rapidity of the combustion.

Q. That is the difference between explosion and fire is it, the rapidity with which combustion sets in and continues?

A. Yes sir, an explosion is simply the result of a sudden expansion, which is largely in cases of the atmospheric air, requiring more room under the consumed atmospheric pressure and it displaces everything that comes in contact with it, to make room for it. Heat, in other words, creates the force to make the expansion.

Q. Which is the more explosive, ordinary gunpowder or this coal dust?

A. Coal dust in itself is not explosive at all.

Q. You have used gun and firearms, haven't you?

A. Yes sir.

Q. Did you ever try loading a gun with coal dust?

A. No sir.

Q. What experiments have you made with coal dust, with a view to seeing how explosive it is, or whether it is explosive at all, or not? We have heard so very tremendous much about the explosive character of coal dust, I would like to know something about it.

A. I have already stated that coal dust as such is not explosive at all. Coal dust is no more explosive than a large chunk of coal is explosive. The only difference is this, that being divided into small monacles or particles, it has a larger heating surface and is more readily ignited and distilled into gas than a large chunk of coal would be, and we only have an explosion as a result of distillation of the coal dust. We cannot have any explosion of the coal dust as coal dust, it simply burns and that distills gas which explodes more rapidly, as a matter of course.

Q. How do you know that?

A. Simply from the fact that we have certain gases that is distilled from coal dust, carbon monoxide, for instance, which is explosive gas, and when it comes in contact with a flame, ignites very rapidly, and we have almost instantaneous expansion in consequence.

Q. You have burnt coal of all kinds in an open grate, haven't you?

A. Yes sir.

Q. And you have poured a bucketful of coal, some fine and some coarse, into a very hot bed of coals, haven't you?

A. Yes sir.

Q. And you never had an explosion, did you?

A. No, because of the fact that in that condition the temperature has not been so great in a given time to distill it quickly enough into gas. It was slow burning, and the gas was comparatively consumed slowly in the act of burning, in an open grate.

Q. Has anybody ever seen a coal dust explosion?

A. I have already said it is not explosive—the explosiveness is from the distillation of the coal dust.

Q. Through whatever process it may go, now as a matter of fact, isn't this whole thing a fine spun theory?

A. No sir.

Q. Why not?

A. Because it has been a demonstrated fact, and we have a tremendous demonstration of it right in this explosion.



Q. You have a demonstration of something very powerful, I grant you. There was a fire there of some kind, of course, and fire will char the coal, wont it?

A. Yes sir, when there is a sufficient amount of heat.

Q. You have to have a certain amount of heat to get fire?

A. Yes sir.

Q. Were you ever present at any of those experiments that were made with coal dust in steel tubes?

A. No sir, I never was.

Q. What would be the effect of sprinkling along through the mine on its floor, and the ribs of the coal seams, an amount of gunpowder that you find in the shape of dust in these mines?

A. Why, you would have an explosion more violent than coal dust from the fact that the distillation is at a much lower temperature, and it takes place at a much lower temperature.

Q. What do you mean by distillation, letting loose the gases in the coal dust or gunpowder either?

A. Yes sir.

Q. Now you saw evidences of fire in room 21 on entry 5, did you find any other like evidences at any other point in the mine?

A. No sir.

Q. How much of the mine did you visit?

A. I visited through No. 3, and all those entries on No. 3 and those cross-entries and in No. 5 cross-entries to the right and left, and all along this main entry and through No. 8, went up those entries to the head of them, and into those rooms to the left of it, and explored all of this along on 8 right, all through those rooms, and all through those cut-throughs, and came back down through on to 10 and 11 cross, came down through there and explored this cross-entry to the right 11-2, went through all those rooms, came back down the air course and came in to this entry 11-1, and went up 12 heading, came down the parallel of it, and went to the face here, of those entries of the old main, came back along down through these entries here to the old main until we reached, I think what they call Italy, went down that air course to Little Italy and came back in as far as cross-cut on the left, going in and through this cut-through on to the lower entry, and run brattice right up this point, to that point right there, near the cut-through, that wasn't through, running between those two entries, and that is as far as I got.

Q. When did you go in?

A. On Wednesday and Thursday nights.

Q. And you were in again today?

A. Yes, sir.

Q. With Mr. Laing and Mr. Phillips and all those gentlemen?

A. Yes sir.

Q. Where did you find the most violence in the mine, I mean as compared with room 21?

A. The evidence was very strong coming down these entries here—8. The evidence was very strong that it came down those entries, and went out along these, and back along these other entries to the right and left of 5 and came down 5, together with this air course, on to the main and beyond that, and then behind the brattice here [Indicating on map.], and while I haven't seen that, I was informed of that by those who did see it that brattice in there, that there was two cars in there that had smashed against the rib, that were smashed into smithereens.

Q. Was it more violent down there, than it was in room 21?

A. Much more. There was very little evidence of violence in 21. There was only evidence of intense heat in 21, there wasn't any violence, because it was initiated there and it radiated from that point, and there was comparatively little violence in there, but the violence was accelerated as it came down this entry.

Q. Did you find any conflicting forces in there?

A. No sir, there wasn't any conflicting forces—it simply followed the line of least resistance, and it followed the line where it got a supply of fuel, if you

might term it in that way, in the shape of coal dust that was raised by compression and vibration of the air and accelerated in its force as it went.

Q. Is it possible to mine coal at all without producing dust?

A. In some mines it is, where the coal itself is very wet and bleeds to such an extent, that you don't have any dust.

Q. How would it be in this Pocahontas field, and the New River field—this coal around here?

A. From what I have seen of this mine up here, I do not think it would be possible to mine the coal without having dust, because it is not sufficiently wet, and the water is not bleeding out sufficiently to make dust impossible.

Q. Were you ever in this mine before the explosion?

A. No sir.

Q. Do you know anything about the dust conditions there?

A. No sir.

Q. Do you know anything about the gas conditions?

A. Not a thing, not from my examination.

Q. Did you discover any gas in there at any time?

A. No sir, not except resultant gases from the explosion.

Q. Now, in these mines, after having exercised the greatest care and extremest caution, is it, or not possible to prevent having explosions?

A. Every care can be exercised that human foresight can provide against and foresee, yet there are exigencies that may arise, under which an explosion may be possible.

By Mine Inspector Laing: Q. Describe one or two of those instances, where you have known explosions to have occurred?

A. For instance, we could have an exigency of this character arise, where we have a number of shots fired in close proximity to each other, or at about the same time. The combustion of one pound of gunpowder will produce about  $2\frac{1}{2}$  cubic feet of an explosive gas, which when mixed with air in the proportion of about as high as 20 to 1 which would be the explosive limits of carbonic monoxide, and it would add 20 times the volume of  $2\frac{1}{2}$  feet of gas that is generated from the explosion of gunpowder. You can conceive where in close proximity to each other in say seven or eight rooms, where there are shots being fired nearly at the same time, you have a resultant, with a volume of the atmosphere in this vicinity, charges the workings with an explosive mixture, an explosion of gunpowder, as I have said, producing a temperature of about 2400 degrees also has a sufficient amount of heat energy in it, in the blasting of coal, that it will distill some of the coal in the immediate vicinity of the coal, and the coal which is right in that hole will distill part of the volatile matter or gases that is in the coal, which will also be added to this explosive mixture, and that together with the velocity attached with the heat energy is transmitted through the air at that particular point, and the compressive forces that are generated by the force of the gunpowder exploding—the sudden expansion would raise considerable dust in that immediate vicinity, and also raise considerable dust in the very act of blasting the coal itself, so that we have distillatory activities set in at the immediate point of explosion of gunpowder, and the compression of the air producing vibration would raise more or less dust in the immediate vicinity of that shot, that they put off at the time, and in passing through that rapidly, just as we would have in this instance where we had an overcharge of powder, we would have this connecting train that would set in operation the explosive forces of all of those seven or eight rooms. Now, imagine that we have seven or eight rooms, and one hundred pounds of gunpowder that is blasted in a comparatively short time, which is no far fetched supposition, but one that can occur under ordinary mining conditions—we have that large volume of gases mixed with the atmosphere, and this surcharged with coal dust due to the vibration and compression of the air, that we can have a condition of the mine atmosphere where an explosion is possible, after you have exercised all the care and caution that human foresight can exercise to provide against an accident from an explosion.

Q. An explosion of that kind would only occur where the miner was either ignorant of his own safety, or was taking chances of that kind?

A. Yes sir, he was simply ignorant of the fact that by using a larger quantity of gunpowder than was necessary, he produced heat energy over and above what was necessary to blast his coal, that would prove very disastrous in the way of an explosion.

Q. Is there any other source by which an explosion may occur?

A. We may have in mines that are generating explosive gases to a more or less extent, that may be diffused through the mine atmosphere even in a lower percentage than could be detected by the ordinary safety lamp.

Q. Isn't it also possible that we have blowers, that we strike what we call blowers in a mine—that is, in mines where gases exist and that have been known to exist in sufficient quantities to ignite?

A. Yes sir.

Q. And cause a local and general explosion?

A. Yes sir, pockets of gas.

Q. We strike a place where it blows out, and it causes sometimes a general and sometimes a local explosion in mines where gas has never been known to exist?

A. Yes, sir.

Q. These cells would be opened up by the blasting?

A. Yes sir, or by the miners picking the coal.

By Judge Holt: Q. Is there any human foresight that can protect a mine against these blowers, of which Mr. Laing has spoken?

A. There is no human foresight that can prevent those, because you don't know where they are until you get to them.

Q. And a man might go in there and do the very best he can, and an angel couldn't do any more, and yet there would be an explosion?

A. You may have the best systems of ventilation imaginable, and you may have taken all the precautions in the way of providing volumes of air, even more than was necessary to supply the demands of the law, and the safety of the men, and the mine property, and yet you may strike a blower at any time, under these conditions, and have an explosion.

Q. That is just one of the chances that all men have to take?

A. Yes sir.

EARL A. HENRY, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Earl A. Henry.

Examination by Mine Inspector Laing: Q. I wish you would give the jury an illustration of a dust explosion through these steel tubes, at the experimental station at Pittsburg some time ago?

A. In the demonstration at Pittsburg in a steel tube they have there, about a hundred feet long, they have small shelves arranged along side for a distance of about ten or fifteen feet, and just at the back end they have a cannon or iron that they can charge with common black powder, and then this tube is closed, and this charge is set off by electricity, and on different occasions while I was there, they exploded the dust by that charge of powder.

Q. Would the flame reach the dust from the cannon's discharge?

A. The flame went right into the dust and it exploded, and the fire it would raise, would raise the trap doors on the tube all along, you could see the flame. Then they gave it a twelve per cent moisture and fire the same charge into it, and it would not explode.

Q. How much greater was the explosive force of that dust at 700 feet than it was at 100, or 200 feet?

A. I don't know as to that, I didn't get that, but it continued to be very strong to the end of the tube, which was one hundred feet long.

Q. The further it traveled the stronger it got?

A. Yes sir.

Q. By way of explanation we have to ask you some preliminary questions: What is your business?

A. District Mine Inspector.

Q. What district?

A. Fifth district.

Q. What state?

A. West Virginia.

By Judge Holt: Q. Were you here between the two explosions?

A. I was here from the 29th day of December, 1908, until the evening of the 1st of January. Then I wasn't here any more until the evening of the 13th of January.

Q. Were you here with Mr. Phillips, between the two explosions?

A. No sir.

Q. Do you know in what condition the mine was, with respect to the safety of men working in there, at the time you left it, between the two explosions, or on January 1st?

A. Only as to the part in this section where the first explosion occurred.

Q. You had been through that?

A. Yes sir.

Q. You have not been in the other portion of the mine?

A. No sir, only up on what is known as S-1, I think they call it.

Q. And how far on that have you been?

A. Up to room 17.

Q. Had you run a motor up through there?

A. Yes sir.

Q. You and Mr. Phillips?

A. Mr. Phillips, and Mr. Grady and Mr. Warner, and the four inspectors agreed it would be a safe proposition to run a motor up to that point, to furnish us with supplies.

Q. And it was done with safety, wasn't it?

A. Nothing happened.

Q. Were naked lights used up through there?

A. Yes sir, along up to that point; we had a lamp station up there.

Q. At what point was the lamp station?

A. I don't know as to that. I never noticed the room where the lamp station was, whether it was up as far as 13 or 7.

To Mr. Stow: What part was that, Mr. Stow?

Mr. Stow: Seven.

Q. Now then, the other portion of the mine, the new portion where the first explosion occurred?

A. That is the old main, as I understand it.

Q. Then were you through the new portion of the mine, that was unaffected by the first explosion?

A. At the time of the first explosion you mean?

Q. Yes sir.

A. No sir, only on the main and S-1.

Q. The one you have just described, with respect to the running of a motor and the lamp station?

A. Yes sir.

Q. Then you don't know what the dust conditions were in this other portion of the mine just prior to the second explosion?

A. No sir, only on S-1 and the main—I saw no dangerous conditions there.

Q. You considered them safe, did you?

A. I did, or I wouldn't have agreed for him to run the motor up there.

Q. And on what day was that?

A. That was on the night of the 29th of December.

Q. You know nothing then as to the dust conditions in the rest of the new main?

A. No sir.

Q. And you know nothing of any gaseous conditions there in the new main?

A. No sir, I wasn't on any part, or in any part of the new main, except the main and S-1, until after the second explosion.

Q. And that is the portion you considered safe?

A. Yes sir.

Q. You were in the mines today were you?

A. Yes sir.

Q. And you went to room 21?

A. Yes sir.

Q. What kind of a shot did you find evidences of there?

A. I found evidences to my judgment of a shot that had been overcharged.

Q. What is the difference between that and a blown-out shot, or whatever you call it?

A. A shot that is overcharged usually brings all the coal, and scatters it around over the room, back from the face or breast, and a blown-out shot blows straight back, and brings the tamping, and I have seen it where it cracked back from it.

Q. Was that coal under-cut in that room—what were the evidences of that?

A. That it was under-cut by the machine.

Q. They were not shooting from the solid then?

A. No sir.

Q. Could you tell certainly and definitely and positively, whether the explosion originated there, or not?

A. No sir, nor nobody else could—that is putting it too strong.

By Mine Inspector Laing: Q. Please state how far that force went there, before it spent itself, and the probabilities that you have that the explosion originated there?

A. There is evidence of force from that room all out in this section [indicating,] and it seemed to divide and come in this direction [indicating on map.], but while that might have been or possibly was the point of origin, it would gather fuel for force as it traveled. There wasn't any great demonstration of force at that time.

Q. It would gather fuel of a similar character, of which you have spoken of, that was demonstrated by this tube in Pittsburg?

A. Yes sir.

Q. I believe you and Mr. Phillips found the new main entry and the S-1, on which the lamp station was established, and the motor run, in a condition that you considered free from dust and safe?

A. At what time?

Q. At the time you run the motor up there for supplies.

A. Yes, sir; in my judgment it was.

Q. Would it not follow therefrom that the entries and rooms leading off from those entries into the new portion of the mine were likewise free from dust?

A. I couldn't say that without making an examination.

Q. What would the indications be at the points of junction?

A. The indications on the main and S-1, in my judgment weren't affected by this explosion. I don't know what the conditions were prior to that time over in the new workings.

Q. What were the indications as to whether any additional dust had gone up the cross entries referred to, from the first explosion?

A. Judging from the condition of the new main and S-1 I wouldn't think there had been any dust or any disturbance that you could note from the effects of this explosion.

Q. You mean from the explosion of December 29th?

A. Yes, sir.

Q. There is no connection between the two explosions?

A. Not that I seen.

Q. If there had been a continual source of dust distributed throughout that mine there, where the first explosion originated, and where it spent itself—if there had been a dangerous condition of dust existing over that part of the mine

—wouldn't it have ignited all of the mine that did not explode and put it in explosion?

A. I think if it had been sufficiently full to carry it from this section [Indicating on map.] up into there [Indicating.], it would have exploded the entire mine at that time.

Q. From the extent of the first explosion as you have seen it wasn't there sufficient volume of explosive mixture in there that did explode to traverse that whole mine there if conditions would justify it?

A. I think so at that time.

Q. So that if that part of the mine we were just speaking of would have been in an explosive condition at that time, it would have extended throughout?

A. In my judgment it would.

By Delegate Mitchell: Q. What is your information in regard to the use of shorter tubes in explosion up there?

A. I do not believe I understand your question.

Q. You gave the length of 100 feet there. If they had used coal dust in one ten feet, would they obtain an explosion under those conditions?

A. You mean did they have an explosion with the use of one ten feet?

Q. Yes, sir.

A. It might have been twenty feet. I didn't have an opportunity to study that carefully. There was a thousand or fifteen hundred people in there and they had shelves that was arranged from this end that was closed up and they had a cannon—they had shelves along a distance of from ten to twenty feet that they put this dust on about half way up the tube and I think the tube was about six feet four inches. Now, they did that to show that when it fired there, that it continued on with the flame, out the different sections—out to the end—and they never put any dust any further than on those shelves.

Q. Did you witness an explosion with any one of those shorter tubes?

A. You could see—they have glass along so that you could see it as it traveled all along, and then these traps on top that it raises up, and you could see the effect of it all the way along. It didn't show as strong in the first one as it traveled along for two or three other lengths of the tube.

Q. In other words, the longer the tube the more confined was the heat and the greater the explosion?

A. Yes, sir; until it would get to the point of the least resistance at the end of the tube. They were only experimenting with very small quantities of dust.

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The Witness, D. R. PHILLIPS, being recalled for further examination, testified as follows:

### Testimony of D. R. Phillips, Recalled.

Examination by Mr. Strother:

Q. After the first explosion in this mine did any of the management ask you about the best method of getting rid of the dust in the old main?

A. Yes, sir; they did.

Q. Who was that?

A. Mr. Jones.

Q. Mr. James Ellwood Jones?

A. Yes, sir; the general manager.

Q. What did you tell him?

A. I told him since they had no apparatus—I described to him an apparatus they were using in the Fairmont district—(Interrupted.)

Q. What kind of an apparatus?

A. It was a water car with a platform extension and a small pump, driven by a two-horse power electric motor; and then they went up to the nearest pool and pumped their water into the tank and took it up to the faces and used their lines—that is, the electric lines. It is a very convenient method in a mine where they have machines, with wires extending into the rooms and entries.

Q. What did you tell him to use?

A. I described that to him but since he had no apparatus of that kind the best method was to haul their water in a water car and distribute it over the roof and sides with buckets, and wash it all down.

Q. They did have water cars, did they?

A. Yes, sir.

Q. Do you know whether that method was adopted, or not?

A. I believe so, from the fact we found three men at the water pool and the water car at some distance from them, as if they had been blown from where they were. I think that is what they were doing on the day of this second explosion.

GEORGE WOLFE, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of George Wolfe.

Examination by Mine Inspector Laing:

Q. Where do you live?

A. Berwind, West Virginia, in McDowell county.

Q. What is your business?

A. Superintendent of the Pocahontas Division for that company.

Q. You have inside supervision of that mine, haven't you?

A. Yes, sir.

Q. How long have you had charge of the mine?

A. Thirteen years.

Q. You have had inside charge for thirteen years?

A. Yes, sir.

Q. Have you ever visited the Lick Branch mine in this county?

A. To-day for the first time.

Q. What part of the mine have you visited to-day?

A. What is known as the new portion.

Q. That takes in what?

A. That takes in, as I understand it, the new driftmouth, 3 cross, and this heading here [indicating on map] known as 5 cross and 8 cross and S-1, up to the face of this S-1.

Q. In traversing that mine to-day, did you find sufficient water in different parts of the mine—so far as your judgment would go—to keep that part of the mine sufficiently moist to make it damp and to keep natural dampness around that part of the mine?

A. I did.

Q. From what you could see of that part of the mine under the conditions under which you saw it, and you were operating that mine—taking that mine—the whole mine to work—right now—would you, or not, consider that mine a dangerous mine, as to dust?

A. I would consider it not a dangerous mine as to dust.

Q. You found that there had been an explosion of some kind in there, didn't you?

A. Yes, sir.

Q. Did you find any place in that mine that led you to believe that it was the origin of the place where the explosion occurred?

A. Yes, sir.

Q. Tell the jury what that place was.

A. At the face of room 21 on 5 entry we found evidence of what might be termed a windy shot. There was evidence of intense heat at that point, and we could trace from that point evidence of violence which seemed to extend in different directions to that new work. We also found in room 4 on 8 evidence of great violence. There was a motor in there torn up and two loaded mine wagons torn all to pieces, and the top slate in that room was ripped down the entire length of the room.

By Judge Holt: Q. Where is that room with respect to room 21?

A. Room 21 is on 5, and room 4 is on 8.

By Mr. Laing: Q. You say you do not consider that portion of the mine unsafe as to dust. Do you consider that mine unsafe from any other cause, that you saw in it?

A. I saw nothing in there which would lead me to believe that the mine was in an unsafe condition.

Q. And does it necessarily mean that a miner who places too much powder in a shot is an ignorant miner, and ignorant of the effect of the shot?

A. Possibly so; he may also be a careless miner.

Q. And you as often find one of those conditions as the other, do you?

A. Very often.

Q. Where are you operating now?

A. On the Dry Fork branch. That is, the Dry Fork branch takes in from Yager which is twenty-two miles west of Welch. We are operating twenty-seven miles up the branch.

Q. That is going towards Tug River from here?

A. We are right in behind the Tug River section; in fact, Dry Fork branch is one of the branches of Tug River.

Q. Do you find any difference in the coal on this side—these same seams—as you go on towards the Tug River?

A. Yes, sir; I do.

Q. As you approach Tug River with these seams do you find any evidence of pockets of gas?

A. Yes, sir.

Q. Can they be discovered by careful mining until you go into them?

A. No, sir.

Q. Then you, nor your management, either, cannot avoid explosions coming from a source of that kind?

A. It could not.

Q. A miner would uncover it unwittingly—however cautious—and take the consequences?

A. Yes, sir.

Q. Where is that room 4? Is that over towards the Tug River side?

A. No, sir; it is on the opposite side.

Q. Where is the Tug River entry?

A. Right here. [Indicating.]

Q. And where is room 4 with respect to the Tug River entry?

A. Room 4 is on the same side of the mine—on S-1. That would not be going towards the Tug River section the way this map has been explained to me. Yes, those two rooms are going towards the Tug River side. I am not geographically well informed about this map here and the location.

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C. E. KREBS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of C. E. Krebs.

Examination by Mine Inspector Laing:

Q. Where are you from?

A. Charleston, West Virginia.

Q. What is your business?

A. Civil and mining engineer.

Q. How much experience have you had in mines?

A. I have been in mines as a mining engineer for the last thirteen years.

Q. Do you or not inspect any dry mines in your district?

A. Yes, sir; we inspect several mines that are dry, among others the Whipple mine and Stewart Parra.

Q. You inspect the Red Ash mine, also, don't you?

A. Yes, sir; but my partner inspects them, so I could not say as to them.

Q. Have you ever been in the Lick Branch mine?



A. I was to-day.

Q. What are the conditions in the Lick Branch mines so far as dust is concerned? How do conditions in there correspond with other mines that you go in, of a similar character?

A. I think the conditions are good. I do not consider them dangerous at all.

Q. If you were operating that particular mine, and I am speaking of the mine as a whole—that is, suppose that was a whole mine that you have been in to-day, and you were operating it—from what you know of other mines, would you consider this mine—so far as you have seen it to-day—a dangerous mine so far as pertains to dust?

A. I would not, except at present I would sprinkle the dust in there that is probably caused by this last explosion.

Q. I want you to judge under the conditions you have seen the mine in?

A. I would sprinkle that and possibly clean the dust off the entry.

Q. You misunderstand me.

A. Please repeat the question then.

Q. Considering the conditions you have seen the mine in to-day, which you know are abnormal?

A. Yes, sir.

Q. I say in the parts of the mine where the explosion did not affect, would you consider those parts of the mine—or the parts of the mine that you have seen, as a whole—would you consider that part of the mine, or all of the mine you have seen to-day—would you consider it, under normal conditions, dangerous, so far as dust is concerned?

A. I would not.

Q. In your opinion, are there any mines in your district, or any mines you go through and inspect, or do work in, that are in as dangerous a condition as this part of the mine you have been through to-day, so far as dust is concerned?

A. Much more dangerous.

By Judge Holt: Q. You went in room 21, did you?

A. Yes, sir.

Q. What did you see there?

A. I don't know that I could tell you any more than what has been told, except in going in there we were trying to find the cause, and the first thing that we found was where those two men were found in the breakthrough to the right, and of course we naturally inquired the condition of those two men, and we found that the men who were found there were numbers 29 and 30, and also found by referring to the report that they were badly burned, and as we went up we found that shot that seemed to have been overcharged, and the coking of the coal on the sides and roof and also slack at the bottom, or near the floor, which was nearly an inch thick, which led us to believe that it was possible that the explosion started at that point.

Q. But you could not state it as a positive fact?

A. No, sir.

Q. Did you find the coal under-cut there?

A. Yes, sir.

WILLIAM NICHOLSON, a witness of lawful age, being duly sworn, testified as follows:

### Testimony of William Nicholson.

Examination by Mr. Laing:

Q. Where are you from?

A. At present I am from Harewood, West Virginia.

Q. What is your business?

A. Mine inspector.

Q. Of what district?

A. Eleventh district.

Q. Of what state?

- A. West Virginia.
- Q. Have you ever worked in mines?
- A. I have.
- Q. In what capacities?
- A. From trapper to superintendent.
- Q. Have you ever worked in Pennsylvania?
- A. I have.
- Q. What did you do there?
- A. The last work I did in Pennsylvania was as a mine superintendent there.
- Q. Have you a certificate of competency from the state of Pennsylvania, to act as a mine foreman?
- A. I have.
- Q. What class certificate have you got?
- A. First-class.
- Q. Have you ever been in the Lick Branch mines?
- A. I have.
- Q. What did you do there?
- A. I first went in with the rescue party.
- Q. When did you go there first?
- A. On Tuesday afternoon, or Tuesday at dinner time.
- Q. On the 12th of January?
- A. Yes, sir.
- Q. Had there been an explosion there?
- A. Yes, sir.
- Q. And you worked from that time on until all the bodies were removed from the mines, did you?
- A. I did.
- Q. Have you been over most of the new part of the Lick Branch mine?
- A. Yes, sir; I have been over it all.
- Q. What is your opinion as to the general conditions of that part of the mine?
- A. I found the conditions all right with the exception of the violence of the explosion.
- Q. Judging from the explosions that you have seen before, and conditions that you have seen before, of a like nature, would you consider that part of the mine in a dangerous condition, as a mining proposition, or not?
- A. I would not.
- Q. Have you seen any place in the mine that led you to believe was the origin of the explosion?
- A. I have.
- Q. Please explain to the jury what place it was?
- A. On 5-1 entry, in room 21.
- Q. State to the jury what you saw there to make you believe that was the origin of the explosion?
- A. I seen where there was a shot fired and from my opinion there was an excessive amount of powder used—more than was necessary.
- Q. Explain to the jury what effect that would have in the way of causing an explosion?
- A. Using an excessive amount of powder caused a flame which ignited the dust in this part of the mine, which gathered its speed until it came down on entry 5-1 and divided from that point on, and as it carried further the force got greater and went in every direction.
- Q. Have you, in your experience as a miner and as a mine superintendent, seen mines operated that were in the same condition as that part of that mine is?
- A. Yes, sir.

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EARL LITTLE, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Earl Little.

Examination by Mr. Laing:

Q. What is your name?

A. Earl Little.

Q. Where were you on last Tuesday morning at about 8:30 o'clock?

A. In the old main of the Lick Branch mine.

Q. What were you doing there?

A. Braking after the motor.

Q. Was the motor operating on that end of the mine?

A. Yes, sir.

Q. Was there an explosion, or not, there?

A. Yes, sir.

Q. Was there any flame there?

A. No, sir; none at all.

Q. What did you see?

A. I didn't see anything, only just air and dust.

Q. How far up in that mine were you?

A. About 500 feet or something like that.

Q. Did it blow you any place? Was it violent at all?

A. Yes, sir; it was violent.

Q. Did it knock you down?

A. Yes, sir.

Q. What did it feel like?

A. Just air and dust; that was all.

Q. Was it warm or cold?

A. Cold.

Q. Did it knock you senseless or did you walk out of the mine?

A. I walked out, or crawled out.

Q. Was anybody with you?

A. Yes, sir.

Q. Who was that?

A. Bob Smith.

Q. Did he come out?

A. Yes, sir.

Q. Where is he now?

A. I don't know where he is now.

Q. How long have you worked in this mine?

A. About two years.

Q. Have you ever heard or seen any gas in this mine?

A. No, sir.

Q. Nor heard of anybody being burned or anything of that kind?

A. No, sir.

Q. Did you ever see anybody taking kegs of powder in this mine?

A. No, sir; I never did.

Q. Did you ever see anybody taking any dynamite in this mine?

A. Yes, sir.

Q. Who did you see taking dynamite in the mine?

A. Several different ones; I don't remember their names now.

Q. How long ago was that?

A. Two or three months.

Q. And you haven't seen that since that time?

A. No, sir.

Q. Were you in the mine at the time of the explosion on the 29th day of December, 1908?

A. Yes, sir.

Q. Where were you at that time?

A. Just inside the drift mouth of the old main.

Q. How far was that from the entrance?

A. About twenty or thirty feet from the outside.

Q. Did that knock you down?

- A. No, sir.
- Q. You felt no particular heat then at the point at which you met this other explosion?
- A. No, sir; I never felt any.
- Q. Were you affected any by the gas?
- A. No, sir.
- By Judge Holt: Q. How much dynamite were the people carrying in, that you saw?
- A. I never saw over twelve sticks.
- Q. What was it used for?
- A. Shooting slate.
- Q. And that was a couple of months ago?
- A. Yes, sir.
- By Mine Inspector Laing: Q. How much dynamite did you see go in at a time?
- A. About twelve sticks.
- Q. Who took that in?
- A. I seen John Hunter take in twelve sticks.
- Q. What does he do?
- A. He was the slate foreman at that time.
- Q. Was he a practical miner?
- A. Yes, sir; I guess he was.
- Q. You say he was the slate foreman?
- A. Yes, sir.
- Q. It was his business to break up all slate in the mine and put it away, was it?
- A. Yes, sir; on the entries where he was at.
- Q. Where was he working at that time?
- A. In 11 entry.
- Q. And that has been two or three months ago?
- A. Yes, sir.
- Q. And you haven't seen anybody taking in any since?
- A. No, sir.
- Q. Did you ever hear the mine foreman forbid people from taking in kegs of powder or dynamite into the mine?
- A. No, sir; I don't know that I heard him.
- Q. But you say you haven't for the last three months seen anybody taking in any dynamite or kegs of powder into the mine?
- A. No, sir.
- By Mr. Strother: Q. You never knew of any of the miners taking any dynamite in the mine, did you?
- A. No, sir.
- Q. You never knew of any dynamite being used to shoot down the coal, did you?
- A. No, sir.

JAMES ELLWOOD JONES, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of James Ellwood Jones.

Examination by Mr. Laing:

- Q. Have you a mine foreman for the Lick Branch mines, Mr. Jones?
- A. Yes, sir.
- Q. Have you a general foreman for the Lick Branch mines?
- A. Yes, sir.
- Q. Where are they?
- A. Mr. Bowers, the mine foreman at Lick Branch mine, was injured in that explosion, and he is at present down at his house—down on Delta hill, here, and he got back from the hospital yesterday, after the injury.
- Q. He is unable to be present here as a witness?
- A. Yes, sir.

Q. Who is your general mine foreman?

A. Mr. C. W. Atkinson.

Q. Where is he?

A. He lives just this side of the Norfolk store. He is confined to his house with a broken leg. He broke his leg on Friday—yesterday.

Q. Your mine is in charge of these two men?

A. Yes, sir.

By Judge Holt: Q. I will ask you the name of the mine foreman?

A. You mean the resident mine foreman at Lick Branch mine?

Q. Yes, sir.

A. Mr. Cleve Bowers.

Q. What experience has he had as a mine foreman and in mines generally?

A. As far as I know he has been working in mines ever since he was a boy.

Q. How old is he now?

A. About twenty-four or twenty-five years old. He started as a trapper boy in Caswell Creek mines and has worked up to the different positions, at the different mines, to the present position of mine foreman.

Q. Do you consider him a competent man?

A. Yes, sir.

Q. You may state as to his present condition—whether he is in bed or not?

A. Yes, sir; he is in bed with an injury to his leg and to his back and an injury to his side.

Judge Holt: I will state, at this point, to the court and jury and you gentlemen [Mr. Laing and Dr. Mitchell] that this man is across here on Delta Hill, and if the court or jury desires to have an interview with him, and hear what he has to say, we can go over there and take his testimony. We didn't hardly consider it fair to drag him out here in his present condition, but if any member of the jury desires to ask him any questions—and that is all he could do—we will be very glad for them to interview him after we get through here.

Mr. Laing: As far as we are concerned we do not care to see him.

Mr. White: For my part I do not care to, but if there is any member of the jury that would like to do so, just say so and we will go over there.

[None of the jury seem to want to go.]

Mr. Laing: Are there any more questions you gentlemen would like to ask the mine inspectors.

Judge Holt: No, sir.

Mr. White: No, sir.

Judge Holt: Q. Mr. Jones, when did you first hear of this explosion on the 12th day of January, 1909?

A. About 8:39 or 8:40 a. m.

Q. In the forenoon of that day?

A. Yes, sir.

Q. What steps, if any, did you take at that time to rescue the men and care for them, and take care of their bodies when rescued? Tell us all you did in that connection, if anything at all?

A. The first I knew of the explosion I was here at the house sitting up stairs, with Mr. Morris, Mr. Strother and a witness, but I cannot remember his name. We were taking his statement as to the first explosion, and we heard this report: it shocked this house, and it was like a dynamite report; it shook the house, and I went and looked out to see if there was any thing wrong with Shamokin, and then I looked around to see if there was anything wrong with Delta—went outside—and nothing seemed to be unusual, and I looked over towards Lick Branch, and I could not see any difference over there, and while I was out looking around, they called me on the 'phone, and I went to the office 'phone and Mr. Little 'phoned me that Lick Branch had blown up again. I immediately got the engineering department and 'phoned and told them to go to Lick Branch mine at once with their safety lamps. Next I inquired for the general inside superintendent, Mr. Atkinson, and they were under the impression that he had gone to Delta. I inquired there, and sent a man over to Delta to tell him to go to Lick Branch immediately. We found out afterwards that he was at Angle, and we sent word there by 'phone. After that I am not able to state the things I did just in line, but I

'phoned for the doctors to go to Lick Branch at once. I also told Mr. Tom Smith to go to Lick Branch and put guards there to keep anybody from going in the mine and to guard the drift mouths. Next I believe was to notify the carpenters—to notify Mr. Craft to get his carpenters to go to Lick Branch and build immediate bratticing. The next thing I called up the office of the Pocahontas Coal Company. My father was over there attending a meeting and a number of other people interested in the property, that I knew were there, and some assistant managers were there, and I told them of our trouble and asked them to come to Lick Branch immediately. I believe, though, before that I endeavored to get hold of Mr. Phillips.

Q. Who is he?

A. He is the district mine inspector of this district—and tell him that we had trouble at Lick Branch and to come immediately.

Q. When did you get him?

A. I judge Mr. Phillips must have gotten there about 10:30, or something like that, of the same day. I don't remember the exact time he got here; it may have been later than that.

Q. State whether or not he was put in charge of the mine on his arrival there?

A. We told Mr. Phillips—after seeing what we could over there—what the indications were and that we thought there was nobody alive in the mines; and as soon as we got on the ground we went to the lower drift—the old drift of Lick Branch—and they had bratticed that drift up at that time, and they had sent men across to the Tug River side to brattice that drift. The strong effect of the explosion seemed to be from the new main drift, and from appearances there, we did not think anybody was alive in the place. We immediately began to get brattice lumber there and by the time Mr. Phillips got to the mines, we had just about gotten our brattice lumber there to begin work, and we told him what we had done, and placed the mine in his charge.

Q. Were rescuing parties then organized?

A. Yes, sir.

Q. And how long was the work of rescue kept up?

A. From Tuesday—from the time of the explosion, or soon after—until yesterday, Friday at about 4 o'clock or 4:30.

Q. How many bodies were taken out?

A. Sixty-five. Soon after I sent a message to Mr. Phillips I also wired Mr. Laing—the chief of the mine department—that we had had another explosion at Lick Branch mine and to come immediately.

Q. State whether or not you provided ways and means for caring for the dead bodies—their identification, burial, &c.?

A. After getting to the drift mouth and finding out conditions there, we then began to make preparations for taking care of any live men that we might get out, or the dead. We converted the old planing mill, that we have down here, into a morgue, and took care of the bodies there, provided stretchers and everything necessary, and blankets to take care of them, and conducted that continuously until Friday evening.

Q. State whether or not the management of these mines have given orders with respect to the use of powder and the quantity to be used or carried into the mine, and also in respect to sprinkling the mines and other precautionary methods?

A. Yes, sir; the instructions were given to the inside superintendent in regard to sprinkling—to do it whenever it was necessary to keep down the dust. As far as the taking in of powder is concerned, our instructions are to obey the state laws, taking in only the quantities prescribed by the law.

Q. What about the air current and and their measurements?

A. Those are followed up by regular instructions to them to test it regularly and to not only take records as prescribed by law but to take measurements more often.

Q. And what have the measurements shown with respect to the air currents in the Lick Branch mines?

A. It shows it in very good condition, as far as I am able to determine.

By Mr. Laing: Q. Do you keep posted at your mines any kind of rules for the government of your men and mines?

A. Yes, sir; we have rules posted at the mines in either five or six different languages.

Q. Do those rules signify the amount of powder to be carried in the mine, the way it shall be used, &c.?

A. Yes, sir.

Judge Holt: What did the jury determine about Cleve Bowers?

Coroner White: They do not care to go over there and interview him.

By Mr. Strother: Q. Mr. Jones, Did the Lick Branch Mine Company, or the Pocahontas Consolidated Collieries Company, take care of the bodies of the victims of the disaster and have them buried and embalmed and provide all means for that purpose that it was possible to provide?

A. Yes, sir; they provided all means, and paid everything, and at any request from relatives of the dead—from one to five or more—if they desired to go to their homes to take the bodies they were allowed to do so and their expenses were paid; and if they wished to return it was paid; and they were provided with money for their expenses while there.

Judge Holt: Are you through, Mr. Laing?

Mr. Laing: Yes, sir.

Judge Holt: Are you through Dr. Mitchell?

Dr. Mitchell: Yes, sir.

### VERDICT OF JURY.

State of West Virginia,

County of McDowell, ss.:

An inquisition taken at Switchback, in the said county of McDowell, on the 13th day of January, in the year 1909, and following days, before C W. White, a justice of the peace of said county, upon a view of the bodies of Henry Lee and divers other persons there lying dead.

The jurors sworn to diligently inquire and true presentment make when, how and by what means the persons whose bodies lay dead before them came to their respective deaths, upon their oath do say that the said persons, to-wit:

Everett Phillips, Luther Boldin, Walter Giles, John Hunter, George Enssey, Charles Phillips, A. R. Jones, Frank Hairston, Ed. Rose, Brown Lee, Unidentified, Henry Lee, George Peters, Ernest Terry, Unidentified, Unidentified, Elk Clark, Unidentified, A. R. Miller, Joe Jones, Taylor Staples, Davis Surratt, Ed. Collins, Riley Surratt, Anthony Johnson, Lemuel Dean, James Ayres, Robt. Wyatt, Henry Bowles, Dan Arrington, Dowdy Miller, Peter Heppenstall, Unidentified, C. J. Hairston, J. Henry Bolen, Mike Robensky, Mel Hunter, Jno. Mitchell, H. A. Leonard, S. C. Clark, Unidentified, Unidentified, Jno. Mahoney, Albert Abell, Henry Waller, Unidentified, Tobe Hutcheson, Walter Martin, Jim Martin, Bruce Mann, Chas. Howard, Floyd Buffalo, Chas. Weillford, Jno. Smith, Walter Eversole, Con Holladay, Clarence Mitchell, Dan Watson, A. P. McDade, Will Durphey, Jno. Hague, Thos. Myeds, Robt. Buffalo

Came to their death by an explosion in the Lick Branch mine, caused by an overcharge shot of gun powder in room 21 off 5-1 entry in what is known as new main of said mines.

And we, the jury, according to the evidence in the above cases further say that we exonerate the Pocahontas Consolidated Collieries Company, incorporated, or the Lick Branch Colliery, from all blame and responsibility for said explosion.

In testimony whereof the said justice and jurors hereto set their hands, this 16th day of January, 1909.

C. W. WHITE,  
*Justice of the Peace.*  
 W. R. SHEETS, *Juror.*  
 O. R. ANDERSON, *Juror.*  
 W. C. HORTON, *Juror.*  
 E. V. BAILEY, *Juror.*  
 E. W. ST. CLAIR, *Juror.*  
 CHAS. HARRIS, *Juror.*

CHARLESTON, WEST VA., January 25, 1909.

The Committee met in the Senate Chamber at 8 o'clock p. m., pursuant to call of the chairman.

Present: Messrs. Gartlan, (Chairman), Kidd, Strickling and Mitchell, and E. C. Frame, Secretary *pro tem.*

Absent: Mr. Duty.

There were also present Mr. John Laing, Chief of the Mine Department, and District Mine Inspectors, Earl Henry, D. R. Phillips, P. A. Grady and John Phillips. Also Hon. John Nugent and Hon. M. H. Roach, members of the House of Delegates.

At the request of the Chairman the Secretary read the reports of the Chief of the Mine Department and sundry district inspectors, as to the cause of the first explosion at Lick Branch Mine, as follows:

## FIRST EXPLOSION AT LICK BRANCH MINE.

### REPORT OF THE CHIEF OF THE MINE DEPARTMENT.

The Lick Branch mine is located in McDowell county, on the main line of the Norfolk & Western Railroad. It is a drift mine, opening on a small branch of Elkhorn River called Turkey Gap Branch, and is about midway between Bluefield and Welch.

This mine is owned by the Pocahontas Consolidated Collieries Company, with principal office at Bramwell, West Virginia. Mr. Isaac Mann of Bramwell is president; James Ellwood Jones of Switchback, General Manager; George E. Atkinson, General Inside Superintendent, and Cleve Bowers, Mine Boss.

The mine is developed by two main headings running parallel to each other and about 2000 feet apart. The left, or New Main Entry, is worked on the double entry system and the Old Main, or Turkey Gap entries, are worked on the double entry system until they break through to Tug River; then they are worked on the three entry system, all of which are shown on the accompanying map. The mine has a producing capacity of 3000 tons daily, but on account of the general depression in business only from 800 to 1000 tons daily were being mined.

The last inspection of the mine, made by this department previous to the explosion of December 29th, is a matter of record and is presented in the evidence of the inquest and reads as follows:

Ventilation .....	Good
Drainage .....	O. K.
Timbering .....	O. K.
Machineries .....	O. K.



Gases .....	<i>None</i>
Oil used .....	O. K.
General safety .....	O. K.
Recommendations .....	<i>None</i>

The coal mined here is the No. 3 Pocahontas seam and has an average thickness of eight and one-half feet of clean coal—a very remarkable feature of the seam. In addition to this it has a most excellent roof, practically no props or timber being used in the mine other than for mine ties. The mine is perfectly free of explosive gas of any kind and is worked throughout with open lights. It is ventilated by a 28-foot homemade fan and is operated by a 100-horse-power General Electric generator. This gives a producing capacity of approximately 100,000 cubic feet of air per minute, with a three-inch water gauge; but it has a capacity of a much greater producing quantity of air if needed.

The air is conducted into the mine in two splits, one intake being at the new main entry of left mine, the other intake being at what is known as Tug River opening.

The air taken into the New Main is conducted through all the left hand workings of said mine, then up to the face of the New Main entry, and back to the third right, and connects with No. 10 entry from the old main, and there joins with the current taken from the Tug River side.

The air from the right hand workings is taken in at the Tug River opening, and conducted up all of the right hand workings of the old mine, distributed through the face and back through all of these workings, and connects with a current from the New Main at the heading of No. 10 entry. Both currents flow back from that point to No. 9 and No. 8 entries and return down the old main air course to the fan.

The stoppings used in this mine are walls built of slate and rock about eight feet thick, and on the entry side they are neatly trimmed and laid in mortar of sand and cement. This makes a very good system of brattices and very little air is lost in transit.

The mine is equipped throughout with electricity and electric machinery of all kinds, such as mining machines, coal loaders, gathering locomotives, etc., and is in many respects a very up-to-date mine.

The coal is delivered to the tippie by a tram road, about one mile from the drift mouth. The tippie has a storage capacity of 500 tons of R. O. M. coal, and an adjoining bin with an equal capacity for slack coal which is used in the coke ovens. There are 192 ovens at this plant, all of which were in blast at the time of the accident, and which produce a very superior quality of coke.

The coal is mined here both by machine and pick methods, and the miner is paid by the car instead of on the tonnage basis.

At 4:00 p. m. of December 29th a message reached this office from district mine inspector D. R. Phillips stating there had been an explosion at Lick Branch mine, and that fifty lives had been lost. I had at that time deputies Warner, Henry and Grady all working in the Eleventh District, who went at once to the scene of the explosion and began to assist in the work of rescue under the direction of D. R. Phillips, who is in charge of that district, and they are to be congratulated for their judgment, ability and bravery. They did, to say the least, heroic work and well, and by 7 o'clock p. m. of the 31st they had explored the entire mine and recovered a total of forty-nine bodies. One colored man who was overlooked was picked up next day by our party while making the final examination of the mine in an endeavor to locate the point of origin of the explosion. In this connection I will only add that any points of origin that may be named by myself, or any of the deputies, as the initial point, will only be conjectural and must not be considered as final proof, for in my judgment there were so many places that could have been the point of origin that I would not attempt to specify any particular place.

The conditions as we found them were simply these: The miners seemed to be getting all the cars they could load. It being the holiday season, many of the men were not at work, and those who were in the mine were no doubt trying to get out as much coal as possible, and in their endeavor to do this, were taking

advantage of the situation and using every possible means at their command to produce coal. As proof of this in seventy-five per cent of the working places in the mine we found where both machine and pick miners had been shooting coal from the solid, although this was a strict violation of instructions from the district mine inspector and also of the regular mine rules posted at the mine. It was proven at the coroner's inquest that the management had used every effort to stop this; but with a condition of this kind, when the height of coal is considered, and the number of tons that can be shot from the solid, particularly with experienced miners, I believe it is impossible to stop solid shooting; for some men rather than mine their coal will drill their holes, charge them with powder and then wait for an opportunity—when the officials are busy in another part of the mine—to go in and shoot them, thereby keeping the air in the mine continually pregnant with an explosive mixture of gases. This mixture is always at such a temperature that a blown-out shot or a hole charged with too large a quantity of powder would at once cause an explosion, especially in such a mine as this.

After we, with a party of experts, had gone over the mine and failed to locate any particular point of origin, I left deputies D. R. Phillips and P. A. Grady at the mine and instructed them to go over it carefully and see if they could find, or determine, any supposed true origin of the cause of said explosion, and I attach herewith their report.

While I agree with them that room No. 7 off second right Entry B suggests itself very much as the point of origin, yet there were several other places that could have been the point of origin and are just as suggestive. So long as men are permitted to do promiscuous shooting in this manner we may always expect explosions of this kind. In my judgment such practice is courting such catastrophes. As the cause of the explosion is defined in the reports of both Phillips and Grady I shall not here repeat, as their reports, in a large measure, are in harmony with my own.

There is no doubt in my mind as to the principal cause of this explosion, which briefly is as follows: By careful inquiry I learned that a general practice in these mines is for the miners to take in a large quantity of dynamite in their powder flask under the pretense of it being powder. They also conceal fuse and dynamite caps on their persons, and it is impossible for any foreman, however strict, to keep in touch with the practices of this kind as these are the most dangerous explosives. It matters not how well a mine is ventilated, or how perfect the conditions are, so long as men are permitted to do their own shooting these catastrophes can be expected at any time, and at any season of the year, in any mine. This explosion is only one of the many we will have throughout the state unless this department be given absolute authority to demand that men thoroughly familiar with explosives be placed in all mines of a dangerous character, to be known as "shot firers," and that all shooting must be done at times between shifts, when all the workmen are out of the mine except the "shot firers."

I mention this method of shooting to bring to your attention the utter disregard that both experienced and inexperienced miners have for the orders of this department, and also for the rules as posted for the government and protection of all employers inside of a coal mine. The strength of a chain is its weakest link; so is every man's life who enters a mine under the conditions referred to: he is at the mercy of the most reckless miner. Many operators of this state are pursuing the policy today of using shot firers, both for the protection of life and property, and in addition they are getting in return a much better preparation of coal. There is nothing to be lost either to the operator or miner by a system of this kind, but everything to be gained by each.

I enclose you herewith a copy of the testimony given at the coroner's inquest held at Switchback on Saturday, January 2nd, 1909. You will notice that none of the deputy mine inspectors testified before this body. The reason for this was that we had not at that time determined any particular cause for the explosion and any evidence that they might have given would have been theoretical rather than practical.

I have been asked by the mine investigating committee to submit to that body what recommendations I could suggest to improve our mining conditions. There are many minor suggestions that I may take up, but the principal suggestions that I have to make are as follows:

First: The employment of shot firers.

Second: That all men in charge of the mines shall have certificates of competency from the state before being permitted to hold such a position. By being drilled in the many dangers surrounding their calling, it will have much influence in carrying out the instructions of this department. As it is now, nine-tenths of the mine foremen throughout the state seem to think they are being paid to deceive the mine inspector and will, if they hear of his presence, in the district, work all night to remedy conditions in the mine to have the inspector report favorably. Then just as soon as the inspector leaves they will pay no attention whatever to the safety of the mine, nor to any instructions the mine inspector may have given, and at the same time will report to the manager that the mine is O. K. By forcing examinations of the kind referred to the state will secure a much more intelligent class of foremen and will go far towards preventing mine accidents of all kinds.

In conclusion—with reference to the Lick Branch mine and what is being done for its future safety—I will add that this company is installing a 4-inch water main throughout all of its principal headings, and leading from this will be a 2-inch pipe into all rooms and chambers. A large tank on the hill will supply the water to this pipe and give a 60-pound pressure. By this system all dust and dry places will be thoroughly wetted and dampened, which will add very much to the safety of the mine but will by no means make it safe unless other precautions are taken in a like manner.

As all names of the victims, etc., are contained in the evidence, there is nothing further to be said. It might be of interest to know that this explosion was of a local nature and was confined principally to that part of the mine known as "Italy," which is composed of Dip A-1 Entry, Dip B-1 Entry, Dip B Entry, Old Main Entry, 12 Cross Entry, 11-2 Entry and No. 11 Entry. All the men who were in this part of the mine at the time of the explosion were killed, but the men escaped from all other parts of the mine practically unharmed after the explosion.

A very fortunate part of this catastrophe was that the fan was equipped with four large relief doors, and when the explosion occurred these doors flew open, thereby taking practically all force from the fan, consequently the fan never stopped running and just as soon as a few brattices could be put up the air was at once put in motion around the mine and the work of rescue began by deputies Phillips, Warner, Henry and Grady, who arrived two and one-half hours after the explosion.

Respectfully submitted,

JOHN LAING,  
Chief of Department of Mines.

## Report of District Inspector D. R. Phillips.

HON. JOHN LAING,

Chief of Department of Mines.

DEAR SIR:

In compliance with your instructions of January 2nd, 1909, that myself and inspector P. A. Grady make a thorough investigation of the Lick Branch mine with the view of ascertaining, of possible, the cause of the disastrous explosion which occurred therein about 2:30 p. m. December 29th, 1908, whereby fifty persons lost their lives, we beg to submit the following report:

A superficial examination of the mine, made January 1st, 1909, by yourself, accompanied by inspectors Earl Henry, William Warner, P. A. Grady, D. R. Phillips and several officials of the company, developed the fact that the explosion was confined to the 11-7, 11-2, No. 12 and the Dip Entries, the forces exhausting

in the No. 9 entry pillars in one direction and through the Tug River opening and down the old Main Entries in the other.

We began our investigation January 4th, 1909, and concluded it in the evening of January 5th, 1909. We first visited the dip workings, which consist of the Main Dip B Entries and the Dip A-1 and Dip B-1 Entries, which turn off to the right and left respectively from the Dip B Entry. We traveled from there to the Old Main Entry, No. 12, 11-1, and 11-2 Entries in the order named, returning again to the Dip workings for further investigation.

At the junction of the Dip B Entry with the Main, we found a heavy switch tie moved outward about four feet at one end, and an examination of the sides showed that the forces had traveled outward. This was more or less plain along this entry to the intersection of the Dip A-1 Entry. We continued down this entry to the face, in the last room of which, we discovered such conditions as led us to believe that this might have been the place in which the initial explosion had taken place. In order to make clear to you the manner in which we arrived at this conclusion it is necessary to explain the method of driving the entry and aircourse at this point, which method was entirely different to that employed elsewhere throughout the mine, and one which is entirely not to be commended in any mine.

The rooms were turned to the left off the first entry, which should have been the air course, according to general practice.

The aircourse was maintained by driving a line of breakthroughs from one room to the other, and in line with each other. This system necessitated the use of either doors or brattice cloth on each room. There are four rooms driven on one hundred and twenty foot centers. The last room is driven several feet beyond the breakthrough or so called aircourse. The first cut was being made directly in front of the aircourse, as if to continue the same towards the next room. A shot had been fired in the left side of this cut, the hole pointing directly into the aircourse.

The shot was on the solid and had simply cracked the coal from the hole downwards, and was undoubtedly a windy shot, blowing out into the aircourse. On the nearest corner opposite the hole charred dust was deposited, and about twenty or twenty-five feet outward in the aircourse the ribs from the floor to the roof were blistered and coked, as if subjected to such heat as might be generated by the explosion of a keg of powder. In no other part of the mine did we find any indications of great heat on the ribs near the floor.

The room neck and entry showed indications of there having been considerable heat and force. Charred dust was deposited in the offsets, and the projections of the ribs were worn off on the inbye side. Traveling out along the entry and aircourse the evidence of the force having gone in that direction, increases. At the intersection of the aircourse with the Dip B Entry, against the rib, we found the remains of a dinner pail and powder keg. A careful examination of the torn sheet of the keg disclosed the fact of its being a new keg, and that it had been ruptured by an internal explosion. This was in the direct path of the force coming out of the aircourse of Dip A-1. Several kegs were found throughout the mine—some whole and some battered—but a careful examination of the latter proved them to be old and none were burst open by internal force.

A careful examination of each room on the Dip A-1 Entry disclosed more or less heat extending toward but not quite reaching the faces.

Following the Main Dip B Entries to the face very little evidence of heat was visible, but a heavy deposit of soot covered every exposed part. In the last breakthrough there had been considerable heat, as indicated by the coked coal on the ribs.

The left of Dip B-1 Entries showed indications of heat in each breakthrough and for some distance on either side. The force traveled out from these two entries to the Old Main Entry. At the intersection with the Main Entry is a side track. An empty car had been standing at the mouth of the Dip B aircourse. The car was hurled by the force across the loaded track to the opposite rib. The force divided at this point, a portion going out through the Old Main Entry to be exhausted in the Old Main workings, and out the Tug River opening, the

other turning, going up towards the face of the Main Entry and derailling three empty cars in its progress, on the side track just mentioned, one of which had the side blown out.

The force was greatly diminished from this point to the face. The soot deposit was very heavy in the right hand aircourse.

A considerable increase of force was noticeable in the lower end of No. 12 entry and aircourse. This was due probably to the fact that these entries were dry and might have had a heavy deposit of fine dust on the ribs at the moment of the explosion. There was no indication of there having been any flame at the face of No. 12 entry. On the bumper of a car at the face there was found two 5-pound powder flasks full of powder and a roll of cartridge paper. These had been placed there by the miner preparatory to making a cartridge.

Rooms No. 15 and 16 on 11-1 Entry showed the effect of some heat on the ribs.

At the foot of No. 13 room which is the connection between 11-1 and 11-2 Entries—the projections are considerably worn on the inbye exposures, indicating that the force had increased here owing to the contracted area at this point.

The force divided here, part going down 11-1 Entry toward No. 9 and the Old Main Entries, the other going up No. 13 room.

At the head of 13 room the aircourse of 11-2 Entry had been headed through to 13 room and was driven about sixty feet with the entry. A car in this place had both ends torn out in opposite directions, showing that a reactionary force had operated here. In one or two other places, there was some indication of reactionary force, but this is perhaps the best example. The track was torn up for some distance here. A heavy deposit of soot was deposited from room 13 connection to the face of 11-2 Entry.

The rooms on this entry show more or less evidence of flame having passed through the breakthroughs.

The greatest force in this Entry is in evidence near the junction of the Entry with No. 11 Entry, and from this point outward it diminishes, becoming spent in the pillar workings of No. 9 Entry, where there is no indication of flame.

In our investigation of the mine, we found that in several instances, entries and rooms had been driven beyond the distances permitted by law between breakthroughs, and while we do not believe that this had any bearing or effect upon the explosion it does show a disposition to neglect upon the part of the official upon whom this duty devolved. At the last visit of the district mine inspector no such violations of the law were noted or found.

We also found that there had been shooting upon the solid in several places, either of the whole cut, or in part.

The greater portion of the coal in the affected area was undercut by 7-foot electric machines, and in the majority of the places it was very evident that there had been an attempt to shoot this cut down its full height, eight feet, with two shots—one in each rib.

We found that some of the miners had placed a center shot and two side shots. Many of the holes examined had been improperly placed and tamped with coal.

This mine was considered an exceptionally safe one. No fire damp had ever been found, and though not a wet mine it was not a dusty one. Owing to the undercutting of coal by machines there was undoubtedly a deposit of fine, impalpable dust wherever it could find lodgment, and in suspension, throughout portions of the affected area, and this propagated the explosion, after the windy shot, and exploded keg of powder referred to heretofore, and supplied the required force and heat to put it in motion and distill its gases.

The company seem to have exercised vigilance and energy in prohibiting the miners from carrying kegs of powder into the mine, despite which it would appear from our findings, and the sworn testimony of one witness, that one man did have a keg of powder in the mine in violation of the rules of the company and the law of the State.

It is evident to us that this explosion was due to the excessive use of powder and the improper placing of the hole and the violation of the law. The miners employed in the mines in this district are chiefly negroes and ignorant, unskilled foreigners who have no conception of their own danger, or those about them.

arising from the careless handling of powder and the excessive charging of holes.

A repetition of this deplorable calamity is possible at any time in the best conducted mine unless there are some changes in the method of blasting the coal. We therefore recommend for this and all other dry mines that the blasting of coal shall be done by shot firers, who shall have the entire charge of the placing of holes, and the amount of powder to be used, and that the shooting be done after the employes have retired from the mine; that all the holes shall be tamped with clay; that the ribs and top near the working faces of a machine mine be washed down with water at fixed intervals; and that the bug dust be loaded out before firing the shots; and for this particular mine, or any other mine where the coal exceeds six feet in height, that it shall be shot down in two benches.

In conclusion we beg to report that the haulage and ventilation equipment are thoroughly up to date. The fan produced 96,000 cubic feet at the last inspection of the district inspector. This air was divided into two currents and was well distributed throughout the workings.

Yours respectfully,

D. R. PHILLIPS,

District Inspector.

January 9th, 1909.

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### Report of District Inspector Patrick A. Grady.

MR. JOHN LAING,

Chief of Department of Mines,

Charleston, W. Va.

DEAR SIR:

At the Lick Branch mine of the Pocahontas Consolidated Collieries Company, in McDowell County, there occurred an explosion on December 29th, 1908, which took the lives of fifty men employed therein.

Several hours after the explosion happened I arrived at the mine in company with mine inspectors D. R. Phillips, E. A. Henry and William Warner. Upon our arrival there we immediately began to assist in recovering the bodies from the mine. This work was completed on the evening of December 31st and on the following day with the above mentioned inspectors and myself, I made an investigation of the mine. On January 4th and 5th, 1909, I made a further investigation along with Mr. D. R. Phillips, the inspector of the district, and a number of other mining men. We examined very closely the sections of the mine which were found affected by the explosion and traced it to where we thought was its point of ignition.

The seam of coal—which averages about eight feet three inches in thickness—is mined with electric chain machines, by means of hand picks, and in a number of places I found that it was being shot from the solid.

The explosive used was black powder and judging from the way a great number of holes were found drilled, and the condition of the coal when shot down, it must have been used in very excessive quantities when considering it from any standpoint of safety.

Where undermined, the coal is generally shot down by a row of single shots across the face. In the entries three holes are drilled to do the work. These holes are started in about five feet four inches from the bottom and inclined upwards until the end of the hole is about seven feet eight inches from the bottom. The rib holes in a number of places I found inclined into the solid coal.

From information gained in and out of the mine I have learned that the amount of powder used in the middle or "heaving" hole of an entry equals a cartridge one and one-half inches in diameter and four feet long.

The holes drilled are from six to seven feet long and the amount of tamping used (which is the coal slack of the mine) in one of these holes very often offers a less resistance to the powder in exploding than that which it has to exert in breaking through the seven feet eight inches which the end of the hole is from the bottom.

When black powder is used in such a manner there cannot help but be large quantities of combustible elements such as hydrogen and carbon monoxide gas produced in its combustion.

At present the mine is being developed on the two and three entry system. Rooms are turned off these entries on 120-foot centers. Even though breakthroughs would be driven as required by law, and no brattice used to conduct the air, the faces of those breakthroughs would go a considerable distance ahead of ventilation before cutting through such thick pillars. This system of working a mine, with such thick pillars, should be condemned, as it allows the working faces to advance too far ahead of ventilation.

In many places I found the faces advanced a considerable distance ahead of the last breakthrough through which the ventilation was conducted, and in making the examination of the mine I could not find any evidence that brattice had been used to conduct the air to these faces. The mine is not known to have generated explosive gas, but, the combustible elements produced in the shooting of black powder (as done in this mine) could find easy lodgment in such places ahead of ventilation.

The mine cannot be considered as a dry and dusty one, but I do think that enough dust is held in suspension in the atmosphere of the mine from the cuttings of the coal and the promiscuous shooting that was being done to help propagate an explosion once it was started.

The place that suggested itself as the most probable initial point of the explosion is at the face of room No. 7 off of the second right entry from Dip B Entry. This room has only been advanced in a few feet from the entry. The face of the entry has not been driven beyond the inside rib of this room and an entry breakthrough has been cut through directly in front of it. At the face of the room a hole was fired and from the appearance of the coal it would be classed as a windy one. An empty car stood in the place ready to be loaded and the men who were supposed to load it were found over in the parallel entry where they evidently had gone to seek protection from the shot when it was fired. The ribs are thickly coked near the place which diminishes in thickness going out the parallel entry towards the Dip B Entries. From this point it went to the Old Main Entries where the force divided. That going out these entries spent itself out the Tug River opening and through the outer workings of the mine. The other force shows that it went into the Old Main Entry workings through the rooms to Eleven-2 entry from where it spent its force through the outer workings.

The explosion from its initial point was propagated by the dust held in suspension in the atmosphere of the mine and the resulting gases from the excessive shooting of black powder.

To prevent a recurrence of such a disaster I would recommend that the use of black powder and all high flaming explosives be prohibited; that the coal be double shot or sheared, in addition to having it undercut, so as to reduce the excessive use of the explosive used; and that the air be conducted to the working places to keep them well ventilated.

Respectfully yours,

P. A. GRADY,  
Mine Inspector, 12th District.

January 9th, 1909.

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## Report of District Inspector Earl A. Henry.

CLIFTON, W. VA., January 19th, 1909.

HON. JOHN LAING,  
Chief of Department of Mines,  
Charleston, W. Va.

DEAR SIR:

I hereby submit the following report of the disastrous explosion which occurred at 2:30 p. m. December 29th, 1908, whereby fifty persons lost their lives

in the Lick Branch mine located in McDowell County, West Virginia. It is owned and operated by the Pocahontas Consolidated Collieries Company.

On the date of this explosion I was in McDowell County, assisting district inspectors D. R. Phillips, Warner and Grady in making special inspections of important mines, in compliance with your instructions.

We arrived at the Lick Branch mine a few hours after the explosion and immediately took charge of the work of restoring the ventilation and removing the dead bodies from the mine. Upon entering the mine we found that it was a local explosion confined to what is known as the Old Main and Tug River opening, and in no way effecting the New Main workings.

On January 1st, 1909, in company with Chief Laing, District Inspectors D. R. Phillips, Warner and Grady with company officials, we entered the effected part of the mine for the purpose of an investigation as to the origin and cause of the explosion. In a number of instances we noted that working places—both rooms and headings—were driven a distance beyond what is known as the 80-foot limit between the breakthroughs; we also found in several working faces where the coal had been shot from the solid, and many of the holes examined had been improperly placed and tamped with fine coal. In this section of the mine the coal has an average thickness of eight feet, and the greater portion of the coal is undercut by a seven-foot electric machine, and in many places it was evident that such cuts had been shot with two holes—one in each rib.

In our investigation we found several places in the advance workings either of which could have been the point of origin, as in my judgment this explosion was principally due to the excessive use of black powder, aided and increased by dust, to some extent, as the principal number of dead bodies taken from the mine showed evidence of suffocation; and but few places that were extremely dry showed evidence of great force, which is usually the case in dust explosions.

The natural conditions of this mine are found to be above the average mine throughout the State, and at no time during the work of recovering the dead bodies, or in our final investigation, were we able to find the slightest trace of fire damp. While there were no large accumulations of dust in any part of this mine it is a well known fact that the undercutting of coal by machinery, and solid shooting, creates a considerable amount of fine dust which finds lodgment on ribs, roof and pavement, and is readily put in suspension by an overcharge shot or by an explosion of a keg of powder, either of which will supply the required force to put it in motion and furnish the heat to distill its gases, with dangerous results to life and property.

As stated before, in my opinion this explosion was due to the excessive use of black powder, and to eliminate a repetition of this calamity I recommend for this and all other dry mines that safety explosives shall be used in shooting the coal and that solid shooting shall be strictly prohibited, and where black powder is used in blasting of coal that shot firers shall be employed who shall have charge of placing the holes and the amount of powder to be used; all holes to be tamped with clay and the shooting to be done after the employes have retired from the mine; and that all dusty sections be kept thoroughly watered at all times while the mine is in operation.

In conclusion I desire to say that the equipment for ventilation was sufficient to furnish the necessary amount of air for the proper ventilation of the mine, if properly distributed to the working faces.

Respectfully yours,

EARL A. HENRY,  
Inspector Fifth District.

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At the conclusion of the reading of the reports the following oral testimony was adduced before the Committee:

JOHN LAING, a witness of lawful age, being first duly sworn, testified as follows:



## Testimony of John Laing.

Examination by Mr. Strickling:

Q. How long have you occupied the position of chief mine inspector of the State?

A. Since the 21st of December, I believe.

Q. After your appointment had you ever visited the Lick Branch mine until after the explosion?

A. No, sir.

Q. After the explosion did you examine the part of the mine that was not disturbed by the explosion?

A. Not all of it. I examined such parts. Part of it I examined, and part I did not.

Q. What instructions, if any, did you give to the district deputies in relation to putting the mine in condition before operations should be begun in the mine?

A. None whatever. I expected to return myself to the mine, and had made preparations to return the day before the second explosion.

Q. Whom did you leave in charge?

A. Mr. Phillips and Mr. Grady.

Q. Had you ever had any information relative to this mine that any of the laws were being violated in the way of driving rooms beyond where the breakthroughs should have been driven?

A. I had not. I called a meeting of all the district inspectors on the 23d of December, and I asked for a list of the mines in each inspection district that they had any reason to believe were dangerous, and the Lick Branch mine was not mentioned in Phillips's report; so I had no reason to believe that that mine was dangerous.

Q. The point is, did you ever have any information that the breakthroughs were not made at the 80-foot limit?

A. None whatever.

Q. Did your deputy ever report anything of the kind to you?

A. No, sir.

Q. When you went upon the scene did you find that condition existed?

A. We did.

Q. In how many rooms?

A. Pretty generally over the mine.

Q. At what distance apart were the breakthroughs in that mine?

A. To the best of my recollection some were the regular distance and some as much as forty feet more than the regular distance.

Q. Did you see any evidence of shooting off the solid?

A. We did.

Q. Please state if that seemed to be the general practice?

A. To the best of my knowledge it was practiced generally over the mine.

Q. Did your department, or you, ever receive any information that this was the practice in this mine up to the time of this explosion?

A. I did not.

Q. The second explosion occurred about thirteen days after the first, I believe?

A. It occurred on the 12th day of January.

Q. Did you give the company permission to go to work?

A. I gave them permission to go to work, but knew nothing about shipping any coal. I gave no permission except to clean up and prepare to start the mine.

Q. So, as I understand, you had no information of any of the laws or regulations being violated in regard to this mine until the explosion took place?

A. None whatever.

By Delegate Mitchell: Q. In giving that permission to whom was it given?

A. In general conversation with Mr. Jones; he asked me about what damage was done to the mine, and I simply told him that the mine was in such shape

that he could go in and clean up to get ready to start the mine—that it would only take him a short time to put the mine in condition to start to work.

Q. When was that?

A. On the Saturday morning following the first explosion, I think.

Q. Have you any knowledge of any of your deputies having permitted Mr. Jones, or the management of the mine, to resume work?

A. \*I have it verbally from Mr. Phillips about his instructions and understanding with Mr. Jones.

Q. Did that permission at that time given by Mr. Phillips to Mr. Jones cover mining as well as cleaning out the debris from the first explosion?

A. That I can not remember.

Q. Was there any report made by any of your deputies after the first explosion and previous to the second that indicated a dangerous condition of the mine?

A. Nothing more than we had observed previous to that time.

Q. Had you observed a dangerous condition existing previous to that time?

A. I had.

Q. In what way had you observed a dangerous condition?

A. Miners being permitted to shoot from the solid promiscuously over the mine.

By Delegate Strickling: Q. You stated that you observed after the first explosion that they were shooting off the solid. Did you call attention to this fact and direct that it should cease?

A. After I had come out of the mines I talked with Mr. Jones, and told him for his own good and for the preservation of life and property there were certain changes that must be made. He said anything I recommended he would do. I told him that I would come and see him, and I fully expected to go back to the mine but was called to another point and could not go. I wrote \*to Mr. Jones and told him that I would like to see him at his earliest convenience, thinking that I would rather to talk to him here than there, for under the conditions that existed you do not want to trouble a man more than you have to.

Q. What district is Lick Branch located in?

A. In the eleventh.

Q. From your reports from that district are there violations in other parts of the district?

A. There are no violations that I have seen except at Lick Branch. That is the only mine I have been in. There are violations generally in the district.

Q. What are these violations?

A. Carrying dynamite in the mines as powder.

Q. As to making breakthroughs, what is the practice generally?

A. I can't say except as to Lick Branch.

By Senator Kidd: Q. In your talk with Mr. Jones, after the first explosion, about the remedies he should apply, did you point out the matters to him in detail?

A. No, sir; I had reasons not to.

Q. What has been your occupation in the last few years?

A. Mining coal—mine operator.

Q. How long have you been engaged in this business?

A. About thirty-five years.

Q. What do you suggest to remedy these dangers?

Witness: All explosions?

Mr. Kidd: Yes, sir.

A. There are different conditions arising throughout the State, and to remedy the matter you would have to apply different remedies to different sections of the State. In the Pocahontas region the use of shot firers would very much minimize the dangers.

Q. Is that demand universal over the State?

A. No, sir; the conditions are not the same throughout the State as they are over there.

Q. What are the conditions there different from other parts of the State?

A. Well, for one thing, they have very thick coal.

Q. What is the thickness?

A. What I saw was about eight and a half feet thick. I was told they had it up to fourteen feet.

Q. You would recommend, then, for that section shot firers, would you?

A. Yes, sir; throughout.

Q. Does there seem to be an effort on the part of the operators and managers of these mines to forbid these violations of the law?

A. At the inquest held after the first explosion it was testified that men have been discharged from the mine and prosecuted for shooting off the solid and carrying excessive quantities of powder in the mines; but a district inspector found a keg of powder, and a man I sent over there to go with him, found twelve sticks of dynamite in one man's place.

Q. Can the carrying into the mine of dynamite, or powder in excessive quantities, be easily prohibited?

A. No, sir.

Q. Would it not be better to have a man at the entrance of the mine to see that it was not done?

A. You would have to keep him there night and day, and depend entirely on the man at the drift mouth to search the men, and under the conditions and character of the men, I do not think it would be a good thing.

Q. I will ask you the character of the men who were working in Lick Branch mine.

A. The character of them, so far as I could see, was a little below the average of the men throughout the State. They were good men in their way, but ignorant of their danger.

Q. In your judgment, then, under no consideration should the miner himself be permitted to do any of the shooting?

A. Not unless it be under the supervision of a man experienced in explosives, and his qualifications should be passed upon by the mine department in general, or the mine inspector of that district.

Q. Did the reports made by the district inspectors for that district detail these violations of law?

A. The reports showed no violations of the law previous to the explosion.

Q. Do you not think that the operators of that mine carried on operations in a careless and negligent manner?

A. When it came to shooting off the solid I would say so; otherwise, not. Simply because the breakthroughs were a short distance ahead of the requirements of law would not indicate they were careless. They might have used brattices, but we did not see any brattices. They might have used brattice cloth.

Q. Did they use machines in undermining the coal?

A. Yes, sir.

Q. That causes, in that kind of coal, a great deal of dust, does it not?

A. Yes, sir.

Q. How about the fan they had there? Was it a large fan and an efficient one?

A. Yes, sir.

Q. Is it possible for one of these fans to conduct too large a quantity of air into the mine and would not that be an added element of danger?

A. I think, in some instances, it is quite possible. It would depend upon the size of the fan and the size of the mine.

Q. It is true, is it not, that too great a velocity of air has a tendency to carry the dust and suspend it in the air, and that adds to the danger of an explosion?

A. Yes, sir.

Q. These shots off the solid result in an explosion when all the other elements are right for an explosion?

A. Yes, sir.

Q. Do you believe it is possible for the mine department, with the number of assistants it has, to thoroughly inspect the mines and keep them in good con-

dition, unless you have the active co-operation of the operators and managers, and keep them safe?

A. No, sir; unless you have mutual co-operation you can not make anything safe.

Q. The fact is, the mine department is almost futile without that co-operation?

A. Yes, sir.

Q. What effect would it have upon explosions in mines, if greater responsibility were thrown upon the operators by law?—if the operators should be compelled by law to assume and pay damages for these explosions?

A. Not more than it has now. An operator can not prevent a man from taking his life in his hands if he sees fit to do so.

Q. If you, as an operator of a mine, knew that you were responsible for the death of any miners killed in your mine by an explosion, would you not exercise more care in the selection of fire bosses, etc?

A. I would exercise all possible care, but not more than I would now. The possibility of paying damages would not influence me, nor do I believe it would influence any other operator in this State, to take more care than he does now.

Q. If such a law were in existence do you believe any operator would permit shots off the solid?

A. I do not believe any law would have any more effect than now.

Q. After the first explosion, it appeared in one of the Charleston papers—over the signature of Ben Davis, President of the United Mine Workers of America, District 17—that some of these miners were working ahead of the air as much as 225 feet. What do you know in regard to that?

A. Yes, sir; I believe they were.

By Delegate Mitchell: Q. The volume of air coming into a mine would not increase the amount of dust in the mine, would it?

A. Very much.

Q. In what way?

A. The greater the volume of air particularly on the intake and haulways—the more dust it will take from the loaded cars and distribute throughout the different parts of the mine.

Q. Did you have information through your inspectors of this district of the carrying of dynamite and powder in unlawful quantities into the mines?

A. I was informed of that fact by a man I sent into the district after the first explosion. I sent him in there for almost that very purpose.

Q. Was the man you sent in there one of your regular deputies?

A. No, sir; not one of my regular deputies, but I believe since that time one of my regular inspectors told me about it. He was present.

Q. That was in the Lick Branch mine, was it?

A. No, sir.

Q. Is it not true, Mr. Laing, that there was evidence obtained in the examination of that mine that there was a keg of powder exploded in the first explosion?

A. I was told so. I did not see that but two of my deputies did.

Q. And the position occupied by that keg of powder—as it was found in the mine—was not very far from this blown-out shot was it?

A. Yes, sir; that is my recollection, or rather information.

D. R. PHILLIPS, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of D. R. Phillips.

Examination by Delegate Strickling:

Q. Of what district are you deputy inspector?

A. Of the tenth.

Q. How many mines have you in your district?

A. Fifty-four.

- Q. How often are you able to visit these mines during the year?
- A. Not more than three times, with my other duties.
- Q. When did you last visit Lick Branch mine before the explosion?
- A. On the 26th day of August.
- Q. Is that a large mine?
- A. Quite a large mine.
- Q. How long did you spend in this mine at that time?
- A. About five hours, I think.
- Q. Did you visit the working faces?
- A. Yes, sir.
- Q. Did you see any evidences of shooting off the solid at that time?
- A. I saw several places that were suspicious looking, but I couldn't say positive. I cautioned them.
- Q. Cautioned who?
- A. Both the miners and the mine foreman.
- Q. Did you caution them by word of mouth or in writing?
- A. By word of mouth.
- Q. Did you note that fact in your report?
- A. No, sir.
- Q. Did you visit the working facings that day?
- A. All that were working; yes, sir.
- Q. About how many men were working in the mine at that time?
- A. I do not recollect exactly but I think between eighty and one hundred.
- Q. Have you noticed any evidences of shooting off the solid?
- A. Yes, sir; in several instances I have.
- Q. Did you make any inquiries among the miners or receive any information from them in regard to shooting off the solid?
- A. No, sir; I did not.
- Q. When did you examine this mine before that time?
- A. I don't recollect.
- Q. How long have you been district mine inspector in this district?
- A. Since the 13th day of August, 1907.
- Q. In any of your visits to this mine did you ever see any evidences of shooting off the solid?
- A. I can't say I did. If I had I would have reported it.
- Q. When you visited these mines, and especially the Lick Branch mine, did you make it a habit of visiting all the working facings?
- A. Yes, sir.
- Q. How far, if you know, were the miners working ahead of the breakthroughs, or ahead of the air in your visit in August?
- A. I do not believe that any of the breakthroughs were beyond the 80 foot limit.
- Q. Isn't it a fact that a number of the breakthroughs were beyond the 80 foot limit?
- A. Yes, sir; I have learned that since the explosion.
- Q. Isn't it a fact that they were driven beyond the 80 foot limit before that time?
- A. Not that I know of.
- Q. Have the managers of this mine authorized breakthroughs beyond the 80 foot limit?
- A. I do not know. On my regular examinations of the mine they were not beyond the limit required by law.
- Q. Then as I understand you to say you did not find any evidence of the breakthroughs being driven beyond the 80 foot limit in your examination of the mine in August?
- A. No, sir.
- Q. In your examination did you see any evidence of shooting with dynamite?
- A. No, sir.
- Q. In your experience you could readily tell whether coal was being shot with dynamite or powder?
- A. Yes, sir.
- Q. What was the method or methods used in August in shooting the coal down? Did they use machinery in undercutting?

A. Yes, sir; they used machinery in undercutting; they used what is known as a heaving shot, first.

Q. Did you ever give instructions as to how the shooting should be done?

A. Yes, sir; I had frequently given instructions as to how the shooting should be done and would call attention to flagrant violations of the law.

Q. Were your instructions usually carried out?

A. I think so; yes, sir. When I gave instructions I believe they were usually carried out. [Interrupted.]

Q. Did you make any investigation as to the amount of powder used in firing the shots, and the method of tamping?

A. Yes, sir; in some instances, and, in fact, in a majority of instances it was wet coal used in tamping—what is called "muck." I have made a search in regard to the amount of powder used. [Interrupted.]

Q. Did you find any dynamite in the mine at the time that you made your examination in August?

A. No, sir.

Q. Was any dynamite used in shooting coal?

A. No, sir; I think not; I am satisfied not.

Q. Have you had information that it was used since the first explosion?

A. No, sir.

Q. Did the department of mines send you any instructions requiring you to ascertain the depth of the hole drilled, and the amount of powder used in shooting the coal?

A. Yes, sir; I have made that investigation.

Q. Were these instructions made to you in writing?

A. Yes, sir.

Q. Were the instructions you gave to the general managers and mine foremen of these mines given in writing or orally?

A. Sometimes I have given general instructions in writing and also orally. If I found any flagrant violations of the law I would call their special attention to it.

Q. Did you ever report the instructions you gave to the department here?

A. Sometimes I did. When I gave my instructions in writing I always sent a copy to the department.

Q. In your examination did you examine the part of the mine that was not affected by the explosion of the 29th?

A. No, sir; except to ascertain whether the explosion at that time had affected that district or not.

Q. Had the explosion affected it?

A. No, sir.

Q. Then as I understand it you did not give that mine a thorough examination before the second explosion?

A. Only whether the explosion had affected that district or not.

Q. Did you have any reason to suspect that the same conditions existed in the other part of the mine that was not affected by the first explosion that existed in that part of the mine in which the explosion occurred?

A. No, sir; I believed the explosion in the old part of the mine was due to a windy shot. [Interrupted.]

Q. In the explosions from a windy shot there must be something else to make the explosion occur?

A. Yes, sir; dust and other conditions.

Q. Did you examine the other part of the mine as to dust, etc.?

A. Yes, sir; sufficiently to learn whether the first explosion had affected that district or not.

Q. I mean did you examine that section sufficiently to determine whether it was safe to work in or not?

A. No, sir.

Q. Who gave this company permission to go to work in the mine?

A. I did. I made an examination that satisfied me that it was safe for me to go to work.

Q. The explosion took place in this mine, I believe?

A. Yes.

Q. How long after that was it that the company was permitted to resume work in the other part of the mine?

A. About ten days.

Q. In your judgment a sufficient exploration was made of that part of the mine to enable you to believe that it was perfectly safe to resume operations?

A. I believe so; yes, sir.

Q. What I want to bring out is this: Was the examination of that part of the mine sufficiently thorough to enable you to state now that in your judgment you thought it safe for men to go to work mining and shipping coal?

A. Yes, sir; in my judgment.

By Delegate Mitchell: Q. Do you believe that the operators are exercising all their skill and ability for the protection of their mines and the lives of their miners?

A. I do not believe that the operators would willfully do anything that would endanger their property or the lives of their miners. I believe that they do everything possible to preserve their property and the lives of the people that work in the mines.

Q. Do you not believe that shooting off the solid makes the work of mining coal extra hazardous?

A. Of course; there is no question about that.

Q. When did you leave the Lick Branch mine after the first explosion?

A. On Tuesday; just a week after the explosion.

Q. Is it not a fact that you gave them permission to enter the mine and clean up the debris at the point of that local explosion, as well as to place men in the mine to mine coal, previous to your leaving?

A. No, sir.

Q. About how long was it from the first explosion until they began work?

A. About ten days.

Q. In Lick Branch mine were the rules and regulations posted as required by law?

A. Yes, sir.

Q. Of course, you do not know whether they were read or not?

A. No, sir.

By Senator Kidd: Q. Did you find what you believed to be the initial point of the explosion?

A. I can't say positively, but I found what I believed to be the initial point.

Q. What nationality of men were at work at that particular place—where you believed the initial point of the explosion to be?

A. Americans.

Q. How many were there?

A. Two.

By Delegate Strickling: Q. You have made a careful examination of the mine since the explosion?

A. Yes, sir.

Q. Were there any places in which the men were working ahead of the air—beyond the 80 foot limit?

A. Yes, sir; several places.

Q. What were the various distances?

A. In one instance it was at least one hundred feet from the last breakthrough.

Q. The law requires breakthroughs every eighty feet?

A. Yes, sir; and the use of brattice cloth.

Q. Did you find these breakthroughs made at the distance required by law, namely: every eighty feet?

A. No, sir.

Q. Did you find evidence which led you to believe that shooting off the solid was generally practiced?

A. Yes, sir.

Q. Are there other mines in your district where that practice is general?

A. Yes, sir.

Q. I will ask you whether or not it is pretty generally practiced in your districts—shooting off the solid?

A. No, sir. I have prosecuted a great many miners for shooting off the solid and also for carrying a greater amount of powder in the mines than is permitted.

Q. When you discover miners shooting off the solid what do you do?

A. I first warn them, and notify them if they do not cease I will prosecute them.

Q. Does your prosecution have any effect towards stopping the practice?

A. Yes, sir; I think it does.

By Senator Kidd: Q. On the day on which this second explosion occurred were men working in the place where the original or first explosion occurred?

A. Yes, sir.

Q. Were they killed?

A. Yes, sir; they lost their lives.

Q. Was the second explosion more terrific than the first? In other words, was not the first explosion more local in its character than the second?

A. Yes, sir. The second explosion was more general.

Q. Then, as I understand it, there was only one or two people escaped in the last explosion?

A. Yes, sir; two, I believe.

By Delegate Mitchell: Q. I want to ask you if in your opinion, the fact that the men were at work cleaning up the debris, or mining coal in the part of the mine where the first explosion took place, had anything to do with the second explosion?

A. It could not have been possible; no, sir.

P. A. GRADY, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of P. A. Grady.

Examination by Delegate Strickling:

Q. You are a deputy mine inspector?

A. Yes, sir.

Q. For what district?

A. For the twelfth.

Q. How is that district located with reference to the district covered by Mr. Phillips?

A. There is one district between my district and Mr. Phillips's.

Q. How long have you been inspector of this district?

A. Since July 12, 1907.

Q. Were you ever in Mr. Phillips's district prior to this explosion, with the view of looking through the mines?

A. Yes, sir; I was in that district once for the purpose of looking into the working of steam locomotives; that was in August, 1907.

Q. What were the conditions of the mines at that time in that district?

A. We only examined into the conditions created by the use of steam locomotives.

Q. Did you go to the working faces?

A. No, sir; except one or two.

Q. Did you make any observations in relation to the breakthroughs, at that time, or whether or not they were shooting off the solid?

A. Not generally; no, sir.

Q. At that time did you make any note whether or not the miners were shooting off the solid?

A. No, sir.

Q. Then you were not in any of the mines until after the explosion on the 29th of December?

A. No, sir; not to any of the working facings.

Q. You assisted in the rescue at the first explosion of the Lick Branch mine?

A. Yes, sir.

Q. What observation did you make about the breakthroughs or distance beyond the 80-foot limit at that time?



A. My general observation was that the breakthroughs had been started at the required distance.

Q. Were they completed?

A. No, sir.

Q. Did you make any measurements as to the distance of the breakthroughs?

A. Yes, sir.

Q. What did you find out?

A. In one measurement I made the distance between the two breakthroughs was about one hundred feet.

Q. How far was that away from the working faces?

A. The working face was about one hundred and seventy-eight feet beyond this point.

Q. What was the result of any other measurement you made?

A. That was the only measurement I made by the breakthroughs.

Q. How far were the men working ahead of the air?

A. According to my measurements the distance was in some instances two hundred to two hundred and forty feet, and in a good many instances over a hundred feet.

Q. Then pretty generally the men were working a considerable distance ahead of the air?

A. Yes, sir.

Q. Did you notice any evidence of shooting off the solid?

A. Yes, sir.

Q. To what extent?

A. Pretty generally throughout the mine I found shots off the solid.

Q. Did that seem to be a pretty general practice in the mine?

A. I found numerous instances of it in the places I visited.

Q. You mean shooting off the solid?

A. Yes, sir.

Q. Did you examine that part of the mine when you were at the first explosion, that was not effected by the last explosion?

A. No, sir.

Q. Were your observations in that mine made in respect to the men working ahead of the air, and if so, please state how far. That is, after the last explosion.

A. In the last explosion I did not have time to examine as thoroughly as in the first explosion, but I found a part of the places where the men were working were ahead of the required distance.

Q. Was there any shooting off the solid in this part of the mine?

A. I can't say whether I observed closely enough to state.

Q. Did you have any information that shooting off the solid was practiced generally in mines in this district prior to the last explosion?

A. No, sir; only in the bulletins from the departments I would notice that the inspectors had prosecuted the miners in this district for shooting off the solid.

Q. Please state whether or not it makes it dangerous for men to work from two hundred and twenty-five feet to two hundred and forty feet ahead of the air?

A. Yes, sir.

Q. Should not the operators, or general managers, or bosses, know of the fact, if this was being done?

A. I would think they would.

Q. Did you find any evidence of any brattice cloth being used to carry the air to the working places where the breakthroughs were beyond the required distance?

A. Not after the first explosion.

Q. You mean by that at the time you made your examination after the first explosion you did not find any evidence of brattice cloth being used?

A. No, sir.

Q. If brattice cloth had been used there would there not have been some evidence left showing that it had been used?

A. Yes, sir; the charred remains at least would be there.

By Delegate Mitchell: Q. In what does the danger consist in men working ahead of the air?

A. Where powder is being used in excessive quantities—as I found it had been

used in this mine—there would be a large quantity of gas generated which would lodge in these places ahead of ventilation.

Q. What kind of gas?

A. An explosive gas.

Q. Is there any danger of the accumulation of a non-explosive gas ahead of the air?

A. To some extent: yes sir.

Q. I will ask you if it is not true that if carbon monoxide would accumulate within the working places ahead of the air, that there would also be an accumulation of carbonic acid gas there?

A. Not necessarily: no sir.

Q. Why not?

A. If any carbonic acid gas would be generated there it would soon be converted into carbon oxide by the heat generated by the shooting of black powder. It would take on sufficient carbon to convert it into C. O. gas.

Q. Whose duties is it to place the breakthroughs, or have the breakthroughs placed at the required distance?

A. The mine foreman.

Q. And the men who are working in the entries or in the mines are not required to place these breakthroughs at the proper distance?

A. I suppose, yes: under the supervision of the mine foreman they are.

Q. You examined the Lick Branch mine after the second explosion, did you not, for the purpose of determining, as far as you could, the origin of that explosion?

A. I went over the mine and made a number of observations of the working places that were affected by the second explosion.

Q. Did you form an opinion from the evidence you collected which would enable you to say as to the point of the origination of the explosion?

A. Yes, sir.

Q. Please state where that was?

A. Room 21 off 5-1 entry we found a shot which had been fired and from the evidence we found there I concluded that it was a windy shot which had generated enough heat to start an explosion.

Q. And you concluded that that was the point of ignition?

A. Yes, sir.

By Senator Kidd: Q. If shooting off the solid had not been practiced in that mine would any of these explosions have occurred?

A. Yes, sir: in my opinion the shooting of the coal from the solid was not the only danger.

Q. In your judgment what was the cause of these two explosions?

A. In my judgment it was due probably to the excessive use of black powder.

Q. Is it not true that these two explosions were caused by coal being shot from the solid?

A. No, sir.

Q. Each of these two explosions was caused, in your opinion, by a windy shot?

A. Yes, sir.

Q. Does the law prohibit that?

A. No, sir.

Q. Did the inspectors seek to prohibit it?

A. I can only speak in regard to my own district.

Q. Did you try to prohibit it?

A. Yes, sir.

By Chairman Garlitz: Q. On what date did Mr. Paul resign from the department?

A. I always understood it to be October 15th.

Q. Who acted as head of the department of mines before Mr. Laing was appointed?

A. Mr. Ross.

Q. By what authority was Mr. Ross the head of the department?

A. I do not know.

Q. Did you attend the mining congress that was held a short time ago in Pittsburgh?

- A. Yes, sir.
- Q. Who of the district inspectors were with you?
- A. As nearly as I remember all of the department, as constituted, were there present.
- Q. By whose authority did you go there?
- A. By the Governor's permission.
- Q. Where did he get the right to grant you that permission?
- A. I do not know.
- Q. Don't you think that it was a dangerous practice for all of the inspectors to be out of the State at one time, especially at that time of the year?
- A. No, sir; only if an explosion had occurred there would have been nobody to have taken the bodies out.
- By Delegate Strickling: Q. There could be an explosion, then, you mean to say, without shooting off the solid? There must be some other element present to cause the explosion?
- A. Yes, sir.
- Q. How far were the men working ahead of the air beyond the initial point of the explosion?
- A. In the first explosion there was a breakthrough directly opposite the point of ignition.
- Q. And in the second explosion?
- A. I did not measure the distance in the second explosion.
- By Senator Kidd: Q. In the first explosion do you believe as much damage could have been done as was done had it not been for the presence of a keg of powder in the mine?
- A. From my observation I do not know whether the keg of powder took any great part in the explosion or not. The powder keg, as near as I can remember, was found about five hundred feet from the point of ignition.
- Q. The evidence was—judging from the condition of the keg—that it had been torn apart by an internal force?
- A. Yes, sir.
- Q. The explosion of a keg of powder would be sufficient to generate enough heat to bring about an explosion such as this?
- A. Yes, sir.
- Q. In your judgment was there a keg of powder exploded at the distance you have named, namely, five hundred feet from the initial point of the explosion?
- A. We found the remains of a powder keg.
- Q. If an entire keg of powder had exploded you could not have found very much remaining of the keg, could you?
- A. No, sir.
- Q. There would have been evidence if a keg of powder had exploded there, and very pronounced, would there not?
- A. Yes, sir.

At the conclusion of the taking of the testimony an adjournment was had until to-morrow evening, January 26, at 8 o'clock.

CHARLESTON, WEST VIRGINIA, January 26, 1909.

The Committee met in the Senate Chamber pursuant to adjournment.

Present: Messrs. Gartlan, (Chairman), Kidd, Strickling and Mitchell, and the Secretary.

Absent: Mr. Duty.

There were also present District Mine Inspectors Earl Henry, D. R. Phillips, P. A. Grady, William Warner and John Phillips. Also, Hon. John Nugent, member of the House of Delegates.

At the request of the Chairman, the Secretary read the report of Mr. Laing, the Chief of the Mine Department, and also the reports of sundry inspectors as to the cause of the second explosion at Lick Branch mine, as follows:

**SECOND EXPLOSION AT LICK BRANCH MINE.****REPORT OF THE CHIEF OF THE MINE DEPARTMENT.**

CHARLESTON, WEST VA., January 26, 1909.

The second explosion occurred at the Lick Branch mine at 8:40 a. m., January 12th, 1909, killing sixty-five miners and injuring one.

This mine is located on the main line of the Norfolk and Western Railroad, about eighteen miles west of Bluefield, West Virginia. The elevation of the drift mouth on the Lick Branch side is 2,160 feet, and the elevation of the drift on the Tug River side is 2,115 feet. The elevation of the fan is about 2,500 feet to the North west of the Lick Branch opening, is 2,084. The elevation of the Norfolk and Western Railroad at Switchback, is 2,054 feet. These levels refer to the mean tide elevation. From these elevations we find that the coal is about one hundred feet above the level of the creek at the Lick Branch opening.

The Lick Branch mine was first opened up by the Norfolk Coal & Coke Company in 1890, and was under the management of Mr. S. M. Buck, President. E. W. Clark and other bankers of Philadelphia, Pa., were the principal owners.

Mr. Jenkins Jones acquired the Clark interests in 1898 or 1899. Mr. Isaac T. Mann was President, Mr. Jenkins Jones was Vice President and Mr. James Ellwood Jones was General Manager.

On July 1st, 1907, the properties of the Pocahontas Consolidated Company and the Pocahontas Collieries Company were merged, and the company is now styled the Pocahontas Consolidated Collieries Company, incorporated. Mr. Isaac T. Mann is President, Mr. C. S. Thorne is First Vice President, Mr. Jenkins Jones is Second Vice President and Mr. James Ellwood Jones is General Manager.

The minimum output of the mine was 5,705 tons of coal in 1890, and its maximum output was 161,166 tons of coal in 1906.

The plant has 158 coke ovens which have been in blast since the opening of the operation except for a few months during the year 1908.

In my report of the first explosion I noted that the mine was developed by two main entries running parallel to each other and about 2,000 feet apart. One of the entries is designated as the New Main drift or Lick Branch opening, and the other drift as the Old Main drift or Tug River Opening.

The first explosion occurred between the Old Main or Tug River opening and the New Main, but did not extend east of the New Main entry. [See map for location of bodies in first explosion, filed with report.]

The coal mined is the No. 3 Pocahontas seam and has an average thickness of eight feet six inches of clean coal. It has a sandstone roof and practically no timber is used in posting.

The mine has always been perfectly free from explosive gases. In fact no explosive gas has been found in the mine either before or after each of the explosions.

The mine is ventilated by an exhaust fan twenty feet in diameter, 110 revolutions per minute, driven by a 100-horse power, 2,200 volt, three phase A. C. motor. The fan was originally built by Keeney & Company, Scottsdale, Pa., but has been recently rebuilt by the company.

The fan was not effected by the explosion so they were able to start it again at once.

The ventilation of the mine at this time was conducted by one intake. The air entered at the new main drift and then was conducted to the face of 3rd X entry, and then back to 5th X entry, through 5-1 entry to the face of 8th X entry; then through 8-1 entry to its face. Then to 11th X entry, through 11-2 to 12 X entry, and then back to the Old Main entry, to Dip B or "Italy," to face of B-1, and then again back to Old Main entry and to 10th X entry, and from there through Old Main entry to the fan. [See map attached to this report.]

The second explosion seemed to have originated on the east of the New Main entry and to have extended all over the mine.

The Department of Mines was notified of the explosion at 9:05 p. m. on January 12th, just twenty-five minutes after it occurred.

I left by first train for the scene, arriving there that evening. I found the mine in charge of district inspectors D. R. Phillips and William Nicholson, who had a

force of men working on the recovery of bodies. I remained until the following day, when I returned to Charleston. District Inspectors Henry and Grady afterwards arrived at the mine and assisted in the recovery of the bodies, so that by Friday evening, January 15th, the mine was cleared of all the dead bodies.

For a location of the position of the bodies as found by the rescuing party see map attached to this report. The number refers to the location of the body; also to the name as given in the testimony of the physicians at the coroners inquest.

I arrived again at Lick Branch mine on the evening of January 15th, and on the next day—January 16th—together with District Inspectors D. R. Phillips, Earl A. Henry, William Nicholson, P. A. Grady and several mine officials and mining experts, made a careful examination of the workings of the mine on the east side of the New Main entry for the purpose of ascertaining, if possible, the cause of the second explosion.

We found that black powder was used by the miners in blasting down their coal. As the thickness of the seam is 8 feet 6 inches and it is undercut by a 7-foot electric mining machine, it would naturally take considerable force to blow down the coal.

The miner begins his hole at about 5 feet from the bottom and bores it upward so as the back part of the hole will be about one foot from the roof. The depth of the hole will be seven feet, the same as the undercut.

We found an overcharged hole in room No. 21, 5-1 entry, which in our judgment was, in all probability, the initial point of the explosion. This hole was bored on the left rib of the room and was evidently tamped with slack coal. The coal was blown back from the face and across the room showing that considerable force was produced by the powder loaded in the hole.

The dust adhering to the coal on the ribs was charred and coked; also the slack on the floor of the room was coked to a depth varying from one-half an inch to an inch thick near the face of the room.

There is a breakthrough started on the right of this room about 50 feet from the face of the room. In this breakthrough were found the bodies of two men. (Nos. 29 and 30 see map attached.) These bodies were badly burned, their clothing having been burned off and their flesh seemed also to be burned. It would seem as if these men had gone into this breakthrough to seek refuge while firing the shot.

The effect of the overcharged hole, was, that probably a considerable amount of powder was not consumed by blasting the coal but was spent by burning in shape of a flame. This in turn taking up the finely powdered dust in suspension was doubtless the initial point of the explosion. The single line of force shown in this room and the direction taken from here determined in our mind that this was the initial point of the explosion.

The condition of 5-1 entry by its charred ribs and coked coal gave additional proof of the blown out shot.

The explosion passing down the room began to distribute itself throughout various directions in the entry—one part of the force going down 5th X entry to 3rd X entry; another force going through 5-1 entry to 8th X entry and from there to 8-1 entry; and these forces going through the New Main entry to 11th X entry and from there to the Old Main entry; then along this entry to the Tug River opening and also to the fan entrance. Three bodies (Nos. 63, 64 and 65, see map) were found in Old Main Entry. One body (No. 58, see map) was found within 350 feet from the Tug River opening.

In studying the layout of the Lick Branch mine we find that the method of working the same was along practical lines, and evidently no expense was spared to bring the property to its greatest efficiency both as to ventilation and the safety of its employees.

It is an evident fact that in mining this seam of coal, other means than pick mining must be employed, and that the blasting of the coal can be accomplished with a minimum amount of danger. In order to accomplish this I think that it is necessary to employ shot firers who shall have charge and be responsible not only for the firing of the shots but for the quantity and quality of explosives used. Also that all holes should be tamped with clay. That in gaseous mines some safety explosives other than black powder be used. That the blasting as far as it is possible should be done between shifts, when the men other than the shot firers are

out of the mine. Also, that the dust from the machine cuttings should be first loaded out before firing the holes. There is no doubt that at present one of the most dangerous conditions in a mine is occasioned by the accumulation of coal dust.

There are several methods that can be employed to keep the mine watered and the air moistened so as to saturize the dust.

I herewith attach the reports of district inspectors Henry, D. R. Phillips and Grady, also a map of the mine showing the position in the mine of the bodies as found by the recovering party.

Respectfully submitted,

JOHN LAING,  
*Chief of Department of Mines.*

January 26th, 1909.

Charleston, W. Va.

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### Report of District Inspector Earl Henry.

CLIFTON, W. VA., January 19th, 1909.

HON. JOHN LAING,  
Chief of Department of Mines,  
Charleston, W. Va.

DEAR SIR:

I herewith submit the following report of the second disastrous explosion which occurred at 8:30 a. m., January 12th, 1909, whereby sixty-five persons lost their lives in the Lick Branch mine, located in McDowell County, West Virginia, operated by the Pocahontas Consolidated Collieries Company.

At the time of this explosion I was in Charleston, West Virginia, at which place I received a message from Mr. Laing, Chief of the Department of Mines, advising me of the explosion; also instructing me to hasten to the scene and render all possible assistance in protecting the persons who were engaged in recovering the dead bodies from the mine.

I arrived at the mine on the evening of the 13th, at which time I entered the mine and assisted in restoring ventilation and recovering the dead bodies.

On Saturday the 16th I again entered the mine in company with Chief Laing, district inspectors D. R. Phillips, Nicholson and Grady, with company officials and mine experts for the purpose of investigating the cause of the explosion, and, if possible, locate the point of origin. The conditions inside the mine gave evidence that the second explosion had occurred in a part of the mine known as the New Main, which part was not in any way effected by the first explosion. We made a thorough investigation of rooms and headings—at which time we found different places that might have been the starting point of this explosion—but the best evidence as to the point of origin was found at face of room No. 21, Entry 5-1, where an overcharged shot had been fired on the left side of the room throwing coal to the opposite side of the room. There was also evidence of heat, as there was charred dust on the ribs and pavement, and the bodies of the two men found in the breakthrough were badly burned. Judging from the position in which they were found it was evident that they had retired to this breakthrough to be out of range after lighting the shot at the face of room No. 21, Entry 5-1. The evidence on this entry is conclusive that the force came from the face of room No. 21, which is demonstrated by the rounded corners of the coal on the inby exposures, increasing in volume by a series of new explosions, or re-enforcements fed by accumulations of coal dust, and in all probability more or less blasting powder, and spreading destruction in every part of the New Main and Old Main workings, unless where its force was diminished by the presence of water or the absence of coal dust.

At no time during the work of removing the dead bodies from the mine, or in making the final investigation, were we able to find the slightest trace of fire damp. This being the case, in my judgment dust was the principal factor in this fearful explosion, causing great loss of life and destruction of property.

In some instances we found that rooms and headings were driven beyond what is known as the 80-foot limit, between breakthroughs. We also found several places that gave positive evidence of excessive use of powder, which is certainly a danger-

ous practice in a dry mine, where the coal is cut by machinery, which creates considerable dust that would be easily placed in suspension and fired by an overcharge or blown out shot, or by the explosion of a keg of powder.

I am of the opinion that by keeping all parts of the mine well watered, where there is an accumulation of dust, especially near the working faces where the blasting is done, it would minimize the chances of an explosion; and by the adoption of safety explosives and using clay for tamping, with experienced men employed as shot firers, who would have charge of placing the holes and the amount of explosives to be used in each hole, it would certainly eliminate the probabilities of a general explosion throughout the mine.

Yours respectfully,

EARL A. HENRY,  
*Inspector Fifth District.*

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### Report of District Inspector D. R. Phillips.

HON. JOHN LAING,  
Chief of Department of Mines,  
Charleston, W. Va.

DEAR SIR:

I herewith submit the following report on the second explosion which occurred about 8:40 a. m., January 12th, 1909, resulting in the death of sixty-five persons. At the time the explosion occurred I was on train No. 15, on my way to visit some mines on the Northfork Branch of the Norfolk and Western Railroad. Upon the arrival of the train at Northfork I was informed of the disaster and learned at the same time that a freight train was ready to depart, going in the direction of Lick Branch. I caught the freight and arrived at the mine about one and one-half hours after the explosion occurred.

Upon my arrival the work of rescue was placed in my hands, and I began at once to organize for that purpose. I selected the most practical and trustworthy men available, as foremen for the several departments required in the prosecution of this work.

I was given valuable assistance in organizing the crews by Mr. Nicholson, inspector for the Eleventh District, who arrived upon the scene in about two hours after my arrival. The organization was made more complete by the arrival that evening of yourself, and the following day of inspectors Henry and Grady.

The work of rescue was carried on successfully without any interruption, the last bodies being recovered in the afternoon of the 15th inst.

On the 16th I entered the mine with the chief of this department, Mr. Laing, inspectors Henry, Grady and Nicholson, Mr. Krebs and several other expert mining men and mine officials, for the purpose of making an investigation as to the cause of the explosion and the point where it originated. We began the investigation in the entries nearest the opening called the New Main opening. We made a thorough examination of rooms and entries from this point to the face of the workings of the New Main district, which area had apparently not been effected by the former explosion.

As we continued from the first mentioned entries inward to the center of this district, from the evidence as indicated by the rounded inbye projections, and the direction in which the debris had been thrown, it was plain that the force had come from some point in advance of us. This condition changed after we arrived in 5-1 entry, at which point the force seemed to have separated, going in several directions. The point from which the force seemed to radiate was in the vicinity of No. 21 room off the 5-1 entry. A careful examination of this room disclosed evidence of great heat having been there. The ribs charred and coked as also was the face of the room and the coal on the floor. A shot had been fired on the left side of the room, a portion of the coal having been thrown to the right side; this together with the shattered condition of the coal strewn in front of the shot was very good evidence of its having been heavily overcharged. Two men were found in a breakthrough off of this room in such a position as to justify the assumption that

they had retired there for protection when firing the shot. These men were badly burned.

We continued from this point forward to the face of the workings and found evidence of the force in some parts having become so reduced as to make it next to impossible to determine its direction, but upon moving onward we found that it had been re-enforced again by dust, powder, or probably the necessary oxygen to produce a more complete combustion of the dust. It was an easy matter when this condition was encountered to trace its course by the direction of the wreckage and worn projections on the ribs.

We found conflicting evidence in many places, but No. 21 room on 5-1 entry seems the most probable point of origin. I re-entered the mine again on the 19th instant for the purpose of accompanying some expert mining men in an investigation of the mine. I saw considerable evidence that had been overlooked upon our investigation of the 16th, but nothing that altered my opinion as to the point of origin.

Our investigation developed that in several instances rooms and entries had been driven beyond the distance required by law between breakthroughs; also that in many places an excessive quantity of powder was used in blasting and that holes were improperly placed.

In my report on the first explosion which occurred December 29th, 1908, I made the statement that a repetition of this deplorable calamity might occur in this or any other mine, unless there were some changes in the method of blasting the coal. I also recommended certain methods by which the danger from this source would be minimized, and I would urge such legislation as would result in taking out of the hands of the ignorant, inexperienced miners the charging and firing of shots and place it in the hands of intelligent experienced men.

Yours very truly,

D. R. PHILLIPS,

*Inspector Tenth District.*

January 26th, 1909.

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## Report of District Inspector P. A. Grady.

CHARLESTON, W. VA., January 23rd, 1909.

MR. JOHN LAING,

Chief of Department of Mines,  
Charleston, W. Va.

DEAR SIR:

At the Lick Branch mine of the Pocahontas Consolidated Collieries Company, in McDowell County, there occurred an explosion January 12th, 1909, which took the lives of sixty-five men and injured one other person.

On January 5th, 1909, I left this mine after making an investigation of the explosion which occurred there on December 29th, 1908. A report of this investigation I submitted to you on January 9th, 1909.

Hearing of the explosion of January 12th, 1909, I immediately left my home and reached the mine at 1 p. m. on the day following. Up until Saturday I assisted in the rescue work of recovering the bodies, and on January 16th, with a number of inspectors, mining men and yourself, I made an investigation to determine if possible what caused this second explosion, happening as it did so closely after the first one.

The conditions which existed at this mine prior to the first explosion I described to you in my report of January 9th, 1909. The mining of coal in one section of the mine was resumed a few days previous to the second explosion. This section is in a different part of the mine and a considerable distance from the seat of the first explosion.

Room No. 21 on 5-1 entry shows evidences where a shot had been fired in the left rib of the face. From the condition of the remaining part of the hole and of the coal in the face it could be seen that the charge of powder in this hole, when fired, caused a windy shot which I believe distilled the gases from the coal dust held in suspension in the atmosphere of the mine and propagated itself by the dust furnished as it traversed the area covered.



In my first report to you I made recommendations which I thought covered the ground thoroughly to prevent explosions in such mines. As these recommendations might be abused by the class of labor we have working in the mines of our state, I would suggest as a further preventative, that shot firers be employed to shoot the coal when all other employes are out of the mine.

Very respectfully,

P. A. GRADY,  
*Mine Inspector 12th District.*

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## Report of District Inspector William Warner.

CHARLESTON, W. VA., Jan. 4th, 1909.

In accordance with section 20 of the mining laws the following is a record of the disaster which occurred at the Lick Branch mine at Switchback in McDowell County on December 29th, 1908.

In pursuance of instructions from the chief of the Department of Mines I went to McDowell County for the purpose of making inspections of a number of mines. Arriving at Welch about 4 o'clock p. m. on the evening of December 29th, from the Jed Mine, Mr. D. R. Phillips inspector of the tenth district received notice of said disaster. With E. A. Henry and P. A. Grady, inspectors, we accompanied Mr. Phillips to the scene of the disaster, arriving about 9 o'clock p. m. at the mine.

Until the evening of the 31st we were engaged in the recovery of the bodies of the dead. On January 1st, 1909, in company with the above named inspectors and a number of other parties I made an examination of the affected portions of the mine.

This mine operates the Pocahontas or No. 3 vein of coal, which averages about eight feet three inches in height. Machine mining was employed to some extent; also pick mining. At a number of places it was observed that coal was shot from the solid.

Black powder was exclusively used for blasting the coal. The usual method practiced in blasting the coal, (where mined by machines) was to drill the holes slanting towards the top so that the end of the hole would reach nearly the top of the coal. Usually three holes were used across in entry and rooms.

Many places were observed where the entire cut was shot down, indicating that all three shots were fired at one time or simultaneously.

It was learned from miners employed in said mines and from other most reliable authority that the usual amount of powder used in "heaving" shots was from forty to forty-eight inches, and the cartridge was about one and one-half inches in diameter.

Where the coal was shot from the solid the holes were drilled at angles, according to the judgment of the miner, and the quantity of powder used was in accordance with the nature of the hole drilled.

Holes drilled straight into the solid were observed in places. Where the coal was mined with machines the depth of the holes would be from six to seven feet. Slack was used for tamping.

Rooms were turned off the entries at one hundred and twenty feet centers, the width of the rooms to be eighteen feet, leaving one hundred and twenty feet for a pillar between the rooms.

A separate record was made of places observed that were driven in excess of the required distance (as provided by law) ahead of the air-current or last break through; and such places here holes drilled into the solid were observed.

I am sufficiently convinced that this mine has never been known to generate fire damp, or that at least fire damp was never detected by the use of safety lamps, or by the naked light.

In consideration of all the above facts my conclusions as to the cause of said disaster—in which fifty lives were lost—are as follows:

Where working places were driven excessive distances ahead of the air current, or ahead of the last break through, and where break throughs were made requiring an excessive distance through the thick pillar, it afforded a splendid opportunity

for the accumulation of carbon monoxide gas produced by the imperfect combustion of the black powder.

The use of kerosene oil by the drivers and day men traveling up and down the various rooms in performance of their duty would greatly assist in impurifying the atmosphere. I believe that in this way the atmosphere was reduced to an explosive mixture, the elements of combustion being so provided. I consider that the point of ignition, or the method by which the explosion was initiated, is not highly important.

The excessive flame from a shot being injected into the atmosphere under the condition named would in my opinion cause the disaster; or a naked light would be sufficient to be the initial cause.

While I would not consider the dust to have been a dangerous quantity, yet the dust that doubtless was suspended in the atmosphere at the time of the explosion was a factor, and, in connection with a condition of the atmosphere as above described, I believe the particles of suspended dust then to have been a matter of considerable assistance to the propagation of the forces. My judgment is that the point of ignition was in the locality of the Dip B entries.

Outside of the conditions herein named I consider said mine a model mine in every other respect. The quantity of air entering the mine and on the entries is sufficient for all purposes; the equipment of the mine excellent and the plans of the mine very good except in one locality, which I understand would have been remedied as development would progress.

WILLIAM WARNER,

*Inspector 7th District.*

At the conclusion of the reading of the foregoing reports an adjournment was had until Thursday evening, January 28, at 8 o'clock.

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CHARLESTON, WEST VIRGINIA, January 28, 1909.

The Committee met pursuant to adjournment and there were present: Messrs. Gartlan, (Chairman), Kidd and Mitchell; and the Secretary.

Absent: Messrs. Strickling and Duty.

The hearings were resumed.

EARL HENRY, a witness of lawful age, being first duly sworn, testified as follows:

### Testimony of Earl Henry.

Examination by Mr. Kidd:

Q. Were you called as one of the deputy inspectors to visit the Lick Branch mine, where two explosions recently occurred?

A. I was not particularly called to the first explosion, but I was in McDowell county at the time it occurred and I went to the mine a few hours after the first explosion.

Q. What examination did you make of that mine while you were there?

A. The first two days I was there I assisted in restoring the ventilation and recovering the dead bodies; and then on January 1st I went over the mine in company with the other inspectors to make an investigation as to the point of origin and the cause, if possible, of the explosion.

Q. What, in your opinion, was its cause?

A. In my judgment the cause was partly due to the excessive use of black powder, aided to some extent by dust.

Q. Did you go back after the second explosion?

A. I was called back to the second explosion on the evening of January 13th and spent two nights in the mine assisting in restoring the ventilation and recovering the dead bodies.

Q. Did you see any evidence of the violation of law in that Lick Branch mine?

A. I found in some instances the rooms and headings were beyond the 80-foot limit of breakthroughs.

Q. Has that been done of recent date or was it of long standing?

A. I think that had been done recently, by reason of cutting the coal with the 7-foot machines, and that they advanced very rapidly.

Q. Had you ever examined that mine before the explosion?

A. No, sir; I was never in that mine before the explosion.

Q. Since the examination of Mr. Paul, late chief of the mine department, and the district inspectors, in May last, what have you to say about the condition of the mines and the willingness of operators to comply with the law and the directions of the department?

A. I can speak more particularly as to my district: A large amount of money has been spent in the mines in my district in making improvements to meet the requirements of the late law, owing to the installing of larger fans, or building of concrete or masonry stoppings, as the headings advance, and constructing overcasts for the purpose of giving the required space in the air current.

Q. Have you experienced any trouble with operators in getting them to do what you required of them?

A. Not in the least, as to the general improvements.

Q. Going back to the Lick Branch mine: I will ask you what was the cause of the second explosion there?

A. In my judgment the principal factor in the second explosion was dust.

Q. What ignited the dust?

A. The best evidence, in my opinion, was that it was an overcharge shot in room 21 on 5-1 entry.

Q. The second explosion was more disastrous than the first, was it not?

A. A great deal more; it was a more disastrous explosion.

Q. And extended throughout the entire mine?

A. Yes, sir; it extended over the entire mine with the exception of some places where it seemed to be damp and there was a scarcity of dust; there it seemed to slacken its force, but it increased its force where it found fresh material.

Q. State what in your opinion would be advantageous rules or laws to prohibit these explosions?

A. With the different conditions that exist in the various coal mines throughout the State I am of the opinion that we should require shot firers to be placed in certain mines where the conditions demand it.

Q. That could be arranged by the law giving the mine inspectors power to exact that in certain mines, could it?

A. I do not think it would be well to give the individual inspector that power, but the chief of the department, with some of his assistants, should decide as to whether that would be necessary or not.

Q. Do you think that would be a general or advantageous requirement for all mines?

A. No; that would only be required in certain mines—only in mines that were liberating explosive gas or fire damp, and the soft coal mines that are extremely dry or dusty.

Q. What about what is known as the Pocahontas coal field? Is that field dry or dusty?

A. I have been in a good many mines in the Pocahontas coal field during the past eight years, at which times I found the mines to be dry and they had considerable dust.

By Delegate Mitchell: Q. How long have they been using black powder in that mine?

A. My opinion is they have been using it since it was opened, eighteen or nineteen years ago.

Q. They have been continually using it?

A. Yes, sir.

Q. Then there must be some other conditions that enter into the causes of explosions other than that of the use of black powder?

A. There are elements, as I stated before, in the way of dust; but I think the greatest danger in mines of that kind is taken into the mines each morning at the beginning of the operations for the day. I mean by that the quantity of black powder in the hands of impractical miners and foreigners, who cannot speak the English language, or do not understand the use of black powder or properly charging and placing their holes.

Q. How could that be prohibited?

A. By the employment of shot firers, they being selected from practical men, and those impractical men not being allowed to handle any explosives whatever.

Q. And not permitted to do any shooting?

A. Yes, sir; nor to handle any explosives.

Q. Isn't it of importance that the hole should be placed properly in the coal?

A. Yes, sir; and that would be one of the duties imposed on the shot firers—to see that they were properly placed or not charge them.

By Senator Kidd: Q. Could one man attend to a mine as large as that—one shot firer?

A. No, sir. Well, it would depend upon the good working qualities of the man. It would take probably half a dozen or a dozen men in a mine of that size, depending largely on the number of men they work, of course.

By Chairman Gartlan: Q. How many men do you figure that a shot firer could shoot for in a mine of that kind?

A. That all depends on what he has to do. In some places the shot firers bore the holes themselves, and charge them. In other cases the miners themselves bore the holes and the shot firers come around and charge them. In that case four men could probably shoot for eighty or one hundred miners in a mine of that kind.

Q. What do you figure would be the increased cost per ton?

A. I do not see where there would be any increased cost per ton, the miner being paid so much per car for blasting and loading his coal. It would of course be reduced to the amount of the explosive and the labor of the shot firers, which I think is a fair proposition, as it is a better insurance of safety to him and lessens the chances of explosion.

Q. Do you think they could deduct enough from the labor of the men to pay for the shot firers?

A. I think they could; so that the operator could not complain of the additional expense put upon him by reason of the additional requirement.

By Delegate Mitchell: Q. Would not the employment of shot firers materially reduce the hours of labor?

A. Not necessarily the hours but less labor during the amount of hours he is in the mine.

Q. He would be relieved of the time it would take to drill and shoot?

A. He would be relieved of that labor.

By Chairman Gartlan: Q. What is your idea in regard to safety explosives?

A. My observation as to safety explosives is that masurite and carbonite are two safety explosives, as they are manufactured, that could be recommended in any mine.

Q. They have got them up to a high degree of perfection?

A. The demonstrations I have seen have proven that as to both—as to their safety and the fumes and odors.

By Senator Kidd: Q. Will you file with the committee copies of letters of instructions given to the various operators in your district?

A. Yes, sir; I will.

On motion the committee adjourned until Monday evening, February 1st, 1909, at 7 o'clock.

CHARLESTON, WEST VA., Feb. 1, 1909.

The Committee met pursuant to adjournment.

Present: Messrs. Gartlan, (Chairman), Kidd, Strickling and Mitchell and the Secretary.

Absent: Mr. Duty.

CHAIRMAN GARTLAN: Mr. Neil Robinson is present and would like to make a statement to the Committee.

MR. ROBINSON: Mr. Chairman and Gentlemen of the Committee: The executive committee of the West Virginia Mining Association, which represents possibly seventy to seventy-five per cent. of the entire coal tonnage of the State, held a meeting in Washington on Saturday last, primarily to take into consideration matters relating to the proposed tariff legislation. This meeting was well attended. Representatives were present from every district in the State, and after the close of the discussion in regard to the tariff, the members of Congress and all others who were not members of the Association retired and we took up for consideration matters relating to our own State affairs, and after a discussion lasting for some time, the following action was had:

"At a meeting of the Executive Committee of the West Virginia Mining Association held in the City of Washington, January 30th, the following preamble and resolutions were offered by Mr. Edward W. Knight, and a vote being taken thereon the same were adopted:

"WHEREAS, It is the understanding that the Mining Department of West Virginia intends to ask for some additional mining legislation at the present session of the Legislature, including a "shot firer's" bill and a bill providing for the licensing of mine foremen and fire bosses; and

"WHEREAS, This Association desires to co-operate to the fullest extent possible with the Mine Department for the protection of lives and property of those connected with the industry but it doubts if the question of "shot firers" should not be a subject for local regulation and believes that the licensing of mine foremen should be carefully considered; therefore, be it

*Resolved*, That a conference committee of five be appointed by the President to act in conjunction with the Mine Department in consideration of any bills the Department may wish introduced at this session of the Legislature.

"WHEREUPON, The President appointed as such conference committee Mr. Wm. D. Ord, Chairman; Mr. L. L. Malone, Mr. M. T. Davis, Mr. Chas. C. Beury and Mr. Ed. Schonebaum."

Immediately upon the appointment of this Committee a call was issued for it to convene in the city of Charleston on Wednesday evening next to discuss—among the members of the Committee—matters that will probably come up for action; and after their arrival here and after that preliminary meeting, to then try and arrange with the Mine Investigating Committee and the mine department to go over and discuss with them any bills they may wish to offer. In this connection I wish to say that the sentiment of all the operators present at the Washington meeting was strongly in favor of doing everything they could in connection with the Mine Investigating Committee and the mine department towards the enactment of such laws as may seem reasonable and proper and right; and if it should be the pleasure of this Committee to arrange for a meeting with our special Conference Committee on Thursday or Thursday evening next, we will appreciate it very much.

On motion of Senator Kidd the Committee accepted the invitation to meet with the special committee referred to on Thursday evening, February 4, at 8 o'clock.

And on the further motion of the same gentleman an adjournment was then had to that time.

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The Committee met, pursuant to adjournment, on the evening of February 4th. and conferred with the conference committee of the West Virginia Mining Association and representatives of the mine department, upon the advisability of certain proposed changes in the mine law. Subsequent meetings were also had at which further suggestions were made and considered; after which the Committee commenced the drafting of its final report, completing the same and submitting it to both houses of the legislature on Thursday, February 18th, 1909. Said report will be found in the front portion of this volume immediately preceding the report of hearings.

NOTE BY THE SECRETARY: -Subsequent to the printing of the hearings, it was decided to insert the Final Report immediately following the Appendix. See page 815.





# APPENDIX.

## ANSWERS TO INTERROGATORIES.

The list of interrogatories commencing on page 219 was submitted to various superintendents and operators and the following replies, under oath, were received by the Committee:

FROM THE GENERAL SUPERINTENDENT OF THE FAIRMONT COAL COMPANY.

Name, J. C. Gaskill.

Occupation, General Superintendent.

Number of mines under my charge, forty-two.

To determine the best plan of a mine for its proper ventilation.

Q. 1. What is essential for conducting the air in sufficient quantity throughout the mine?

A. Airways of sufficient size and number to conduct the air, and a good fan to produce a sufficient quantity.

Q. 2. How many airways should be provided for the intake and return current and in what manner are the number of such airways governed by the extent of territory to be developed?

A. The number of airways necessary depend on the amount of territory and the number of tons to be produced per day.

Q. 3. Is good mine ventilation dependent upon a high velocity of the current or on a large volume of air under a medium velocity?

A. A large volume under a medium velocity.

Q. 4. What should be the minimum and the maximum velocity of current of air in a mine which liberates explosive gas?

A. From 175 to 200 feet per minute at the face of the workings.

Q. 5. What should be the minimum velocity of the air at the working face of an entry or room?

A. From 50 to 100 feet per minute in mines that do not generate explosive gas.

Q. 6. Do you consider that the double entry system gives sufficient room for the proper ventilation of an unbroken boundary of 1000-acre tract of coal?

A. No.

Q. 7. What ratio should exist between the acres to be developed and the sectional area of the air courses in a mine free from explosive gas?

A. The sectional area of air courses should increase by increasing the number of air courses with the number of acres to be developed.

Q. 8. Is it advisable to use masonry or concrete stoppings in cross-cuts in room headings?

A. No; use wood.

Q. 9. Which is the better method—to use a force or exhaust fan in the ventilation of a mine?

A. Generally an exhaust fan.

Q. 10. Note any deficiencies in our State mine law providing for the proper conduct of air through the mines?

A. None.

Q. 11. What is the source of the greatest number of fatalities in the mines under your charge?

A. Falls of roof.

Q. 12. How many mines under your charge liberate explosive gas?

A. Six.

Q. 13. Do you have all your fans equipped with recording pressure gauges, and what is the advantage of having such recording gauges?

A. Yes; they enable the superintendent to know whether the fan is being properly operated during the twenty-four hours.

Q. 14. What is your practice in the removal of or prevention of dust within the mines?

A. We haul it out and water it down.

Q. 15. To what extent do you permit the use of brattice cloth in the ventilation of any of your mines.

A. Where necessary to ventilate the working faces between crosscuts.

Q. 16. In a gaseous mine to what extent should the use of brattice cloth be permitted?

A. Only to ventilate between crosscuts.

Q. 17. Do you consider trap doors assential to the proper ventilation of a mine?

A. To a certain extent; yes.

Q. 18. What do you think of the advisability of dispensing with all trap doors, other than those operated automatically?

A. Do not think it advisable.

Q. 19. What are the advantages, if any, of having grating doors or gates at the various openings in which men enter, to be securely locked by the fire-boss while he is performing his duties of examining the mine, to prevent other employes from entering the mine before he makes his report on the outside?

A. To keep men out until the mine has been properly examined.

Q. 20. Do you experience any trouble in having the mine employes conduct their work in the manner directed by you, through your officials?

A. Very little.

Q. 21. What is your practice in the placing of an inexperienced miner to work within the mine, with a view of guarding his safety?

A. We have him work under the direction of an experienced person.

Q. 22. How do you establish among the non-English speaking employes, as well as native employes, a proper observance of your rules and regulations, and in what way are the employes disciplined?

A. Each person is furnished with mine rules printed in his language and in case he does not obey these rules he is laid off from five to ten days for the first offence; for the second offence he is discharged.

Q. 23. What precaution should be provided within a mine where high tension electric wires are in service with the view of minimizing accidents?

A. They are put up high enough, or out of the way, so that they are safe from persons traveling in and out of the mines.

Q. 24. Are your mine foremen given full authority to discharge a mine employe for infraction of the rules governing the mine, or for other just cause?

A. Yes.

Q. 25. Are the mine employes encouraged to lodge complaint when dangerous conditions arise and which may not be given proper attention by the foreman in charge?

A. Yes.

Q. 26. Have you inaugurated any systematic plan for familiarizing your foreman or employes with the requirements of the mine law, and what, if any, is that plan?

A. Yes; we have monthly meetings of superintendents, foremen and fire-bosses at which the mine laws are discussed.

Q. 27. With the view of securing the safety of a miner against falls of the roof how often should he be visited in his working place by one competent to judge of the probability of danger?

A. At least once a day.

Q. 28. In your experience do you find that old, practical miners become indifferent to the necessity of setting timber and require to be frequently cautioned against their neglect?

A. Generally they do.

Q. 29. State whether or not you are of the opinion that the mine explosions in West Virginia are due to negligence or want of care?

## A. Neither.

NOTE: The mines under my charge are divided up as follows as to State districts:

All Fairmont Coal Company mines in the First and Second Districts, excepting Beechwood, which is in the Third District.

All Clarksburg Fuel Company mines in the Second District.

All Pittsburg & Fairmont Fuel Company mines in the Second District.

The Southern Coal & Transportation Company (Berryburg Mine), in the Third District.

## FROM THE GENERAL SUPERINTENDENT OF THE DAVIS COAL &amp; COKE COMPANY.

Name, Lee Ott.

Occupation, General Superintendent Davis Coal & Coke Company.

Number of mines under my charge, Twenty-four.

To determine the best plan of a mine for its proper ventilation:

Q 1. What is essential for conducting the air in sufficient quantity throughout the mine?

A. A good fan; airways of a large area and straight; no short crooks nor small places in them.

Q 2. How many airways should be provided for the intake and return current and in what manner are the number of such airways governed by the extent of territory to be developed?

A. For intake I would advise two airways in order to get low velocity, using one intake main haulage way and the other intake for manway, mules and horses, keeping both in fresh current at all times. This would mean three heading system with exhaust fan on middle entry. With electric haulage men, mules and horses can enter the mine in third entry in fresh air current, free from electric wires. In this system no one need ever be in the return air current. The return airway should be driven large enough to take care of all requirements and future developments. As to the manner of airways governing extent of territory, it is my opinion all emergencies can be met in the three-entry system, using two inlets and one outlet unless the territory is extremely large; then I would suggest a four-entry system, using two inlets and two outlets, but in no case more, owing to the amount of storage room for gases, dust, etc. All entrances to mine should be in constant use when mine is in operation, and return airway only used for air.

Q 3. Is good mine ventilation dependent upon a high velocity of the current or on a large volume of air under a medium velocity?

A. Good mine ventilation is dependent on a current that will carry off all gases, smoke, etc., at as low a velocity and as large a volume as will clear the working face and keep it clear at all times.

Q 4. What should be the minimum and the maximum velocity of current of air in a mine which liberates explosive gas?

A. The question does not admit of an exact answer. The velocity would be governed by the amount of air required and the size of airways, as no number of mines present the same conditions. In a mine clear of marsh gas any velocity that men can work and carry a light in is practically safe, if no dust, or heavy shooting is done. In mine where marsh gas is found together with dust, I would advise low velocity and large volume. For illustration; to ventilate a mine, 300 miners, using five splits, 60 men in a split with airways 6x10 feet would require a velocity of 200 feet per minute in each split, allowing 12,000 feet of air per minute to each split, or a total of 60,000 feet of air for the entire mine. I would consider 200 feet per minute as the minimum velocity and 250 feet as the maximum. For a mine as above described this would give at a maximum velocity 15,000 feet of air per minute to each split. This mine would require no doors other than check doors to divert the air into rooms on the room headings. I would advise that the doors for this purpose be automatic if the conditions at point on headings where door is to be used will permit; if not, an ordinary door can be used.

Q 5. What should be the minimum velocity of the air at the working face of an entry or room?

A. The velocity should be no greater than just what would render the room or heading safe. It is not necessary to have a high velocity at the face of any room

or heading. The question of velocity does not admit of an exact answer in my judgment that will govern all occasions.

Q. 6. Do you consider that the double entry system gives sufficient room for the proper ventilation of an unbroken boundary of a 1000-acre tract of coal?

A. Yes; but a three-entry system would be better, which is illustrated by the plat sent herewith, giving three ways of working triple entry and double entry; or one sketch showing a good system to operate a field of 1000 acres fully extended, and arrowing showing ventilating currents.

Q. 7. What ratio should exist between the acres to be developed and the sectional area of the air courses in a mine free from explosive gas?

A. This would depend entirely upon the extent of the property, the thickness of the coal, etc.

Q. 8. Is it advisable to use masonry or concrete stoppings in cross-cuts in room headings?

A. No. If proper board or plank brattice is put in, air tight, it is my candid opinion it is just as good, for the reason that if the mine is properly laid out, room heading will be finished long before the brattice has rotted any. I would advise concrete in main entries, or on airways, to be used the entire life of the mine.

Q. 9. Which is the better method,—to use a force or exhaust fan in the ventilation of a mine?

A. Exhaust in a mine generating marsh gas. All fans in all mines should be built to work both ways—exhaust and force.

Q. 10. Note any deficiencies in our State mine law providing for the proper conduct of air through the mines?

A. In my judgment the present law fully covers the ventilation of mines. I am personally of the opinion that mine inspectors should stand an examination before a board of examiners created by law.

Q. 11. What is the source of the greatest number of fatalities in the mines under your charge?

A. Falls of roof and coal.

Q. 12. How many mines under your charge liberate explosive gas?

A. Three, in small quantities.

Q. 13. Do you have all your fans equipped with recording pressure gauges, and what is the advantage of having such recording gauges?

A. We do not, but are equipping same as fast as we can. Advantages as follows: 1st. We know in the morning how much air the fan has been circulating through the mine, definitely. 2nd, it is a check on the man who looks after the fan at night.

Q. 14. What is your practice in the removal of, or prevention of dust within the mines?

A. Watering it down and removing it when in large quantities. In some cases we use salt to good advantage; it dampens deeper into the dust than water.

Q. 15. To what extent do you permit the use of brattice cloth in the ventilation of any of your mines?

A. Only to direct current up a heading or room until same is far enough for cross-cut.

Q. 16. In a gaseous mine to what extent should the use of brattice cloth be permitted?

A. The same answer to No. 15 question will apply to this question. Brattice cloth can be used from the last cross-cut until place is far enough to drive next cross-cut.

Q. 17. Do you consider trap doors essential to the proper ventilation of a mine?

A. Temporarily, yes. A mine could not be run without them, but they could be entirely confined to check-doors for diverting current into rooms.

Q. 18. What do you think of the advisability of dispensing with all trap doors other than those operated automatically?

A. I would advise abandoning the use of all doors of any kind whatsoever as near as possible. All doors can be abandoned except check doors in room headings. The use of automatic doors could not be made compulsory for the reason

that conditions will not permit the use of them in all cases; it could be enforced when and where practical.

Q. 19. What are the advantages, if any, of having grating doors or gates at the various openings in which men enter, to be securely locked by the fire-boss while he is performing his duties of examining the mine, to prevent other employes from entering the mine before he makes his report on the outside?

A. I fail to see any advantage whatsoever. No miner will enter the mine with a board displaying the danger signal on the entrance. I have known them to go over a danger signal inside the mine in many cases. A careful watch should be kept over these dangers by mine foreman.

Q. 20. Do you experience any trouble in having the mine employes conduct their work in the manner directed by you, through your officials?

A. We do. It requires a constant watch at all times. The majority of accidents occur from neglect to faithfully perform the duties as assigned the employes, by the officials in charge. This has been my experience.

Q. 21. What is your practice in the placing of an inexperienced miner to work within the mine, with a view of guarding his safety?

A. We first supply him with the mine law and a copy of the general and special rules governing our employes, said rules conforming to the state mining law, (a copy of which rules is herewith submitted.) He is taken to his work and instructed by the mine foreman as to his duties, and put to work under the instruction of an experienced miner.

Q. 22. How do you establish among the non-English speaking employes, as well as native employes, a proper observance of your rules and regulations, and in what way are the employes disciplined?

A. Mine laws and rules are given them printed in English at the present time, with interpreter to translate same into their language. Placed order last August to have these mine laws and rules printed in the various languages spoken by our employes, and as soon as received will have them distributed to the employes according to their native language. Men are suspended for a short time for small offences, and dismissed entirely from the employ of the company for serious offences or disobeying orders.

Q. 23. What precaution should be provided within a mine where high tension electric wires are in service with the view of minimizing accidents?

A. Traveling ways for men and stock should be made independent of the haulage-ways, or ample space provided on the opposite side of the haulage headings from wire.

Q. 24. Are your mine foremen given full authority to discharge a mine employe for infraction of the rules governing the mine, or for other just cause?

A. Yes; and he cannot be re-employed only by consent of said foreman, unless investigation is made by request of said employe and mine foreman found in error. He is then allowed to return to work under the same foreman.

Q. 25. Are the employes encouraged to lodge complaint when dangerous conditions arise, and which may not be given proper attention by the foreman in charge?

A. Yes. "Rule No. 46. All employes shall inform the mine foreman or his assistant of the unsafe condition of any working place, haulage road or traveling way, or of damage to doors, stoppings or obstructions in the air passages when known to him."

Q. 26. Have you inaugurated any systematic plan for familiarizing your foremen or employes with the requirements of the mine law, and what, if any, is that plan?

A. We have. They meet once a week in the superintendent's office to discuss the mine law, the best method of ventilation and general condition of mines. We find it quite a success.

Q. 27. With the view of securing the safety of a miner against falls of roof, how often should he be visited in his working place by one competent to judge of the probability of danger?

A. Experienced miners should be visited each alternate day; inexperienced ones every day, and instructed carefully as to propping the roof, mining, spragging, and the safest and most economical way of blasting their coal.

Q. 28. In your experience do you find that old, practical miners become indif-

ferent to the necessity of setting timber, and require to be frequently cautioned against their neglect?

A. As a rule they are apt to risk their safety to save work, or postpone it in many cases, and it requires the eternal vigilance of the mine foreman to get them to keep their working places safe.

Q. 29. State whether or not you are of the opinion that the mine explosions in West Virginia are due to negligence or want of care?

A. Negligence on the part of some employe, in most instances.

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FROM STUART M. BUCK, JAS. ELLWOOD JONES, HARRY BOWEN, JAVIN COLLINS,  
EDWARD COOPER, W. T. WILLIAMS, THOMAS H. CLAGRETT AND PERCIVAL  
JOHNSON, SUPERINTENDENTS OR OPERATORS IN THE POCAHONTAS FIELD.

*To the Legislative Mine Investigating Committee of the State of West Virginia:*

In accordance with your request made to us during your recent visit in the Pocahontas field, we have formulated answers to the questions which you left with us. You asked for criticisms on the laws relating to ventilation, and we have in addition pointed out some defects which in our opinion exist in the general mining laws.

Q. 1. What is essential for conducting the air in sufficient quantity throughout the mine?

A. Sufficient passage-ways for the air with ample power to give it motion. In mines of large working capacity it becomes necessary to split the air into two or more separate currents. In all cases it is important to maintain close stoppings between the intake and return passages. The power may be either exhaust fan, force fan or furnace. The furnace is not to be recommended except for smaller mines, or in the first opening of larger operations before permanent connections are made. In any use of a furnace the danger of an explosion in case of gas must be kept in mind.

Q. 2. How many airways should be provided for the intake and return current, and in what manner is the number of such airways governed by the extent of territory to be developed.

A. The number of airways depends on the presence or absence of gas, the output of the mine and force of workmen employed, the use of steam, electricity or mule haulage, the shape and accessibility of the property, the thickness of the coal and the character of the roof. The number does not depend on the area of the property but on the working conditions. The airways must be sufficient to circulate air enough to supply the men and mules and to dilute and render harmless any gas, if such exists. They should be of such area that the air required may move freely without traveling so fast as to endanger the men by blowing out their lights. A mine of 400 acres worked very actively with a full force of men and with an ample supply of cars will require far more air than a mine of 2000 acres operated under adverse conditions and with a limited car supply. A mine above water level and so situated that fresh intake openings may be made on the outcrop as the work advances, will require a much simpler ventilation than one with solid boundaries. So also a mine with solid boundaries, but having a moderate roof cover or a roof cut by valleys, so as to allow ventilation by shaft, will not require as large airways as if all the current were taken from a single point. A single entry ten feet wide in coal 8 feet thick will conduct more air than two entries ten feet wide in coal 4 feet thick. The area will be the same but in the latter case the friction will be greater.

Q. 3. Is good mine ventilation dependent upon a high velocity of the current or on a large volume of air under a medium velocity?

A. On a large volume at medium velocity, bearing in mind that the presence of gas requires a more active current than the normal one.

Q. 4. What should be the minimum and maximum velocity of a current of air in a mine which liberates explosive gas?

A. The minimum quantity of air in case of gas is that required to make the place safe, and the minimum velocity depends on the sectional area of the passage through which such quantity of air must pass. The maximum velocity in case of gas, should not be sufficient to blow the flame through or against the gauze of a protected safety lamp. Where the gas is only an occasional occurrence, it is desirable to so limit the velocity of the air on haulways and traveling ways, that open lights may be kept burning and men may work with reasonable comfort.

Q. 5. What should be the minimum velocity of the air at the working face of an entry or room?

A. The wording of the mining law should be changed to avoid ambiguity, and where the mine is free from gas the requirement of ventilation should apply to the breakthrough nearest to the working place. In many cases it would be a matter of great difficulty to carry the full current to the actual working face, and, provided the place is free from gas, it is something not required for the safety or health of the miner, in the proper conduct of his work. As to the minimum velocity at the working face, the answer to the previous question covers this point in case gas is present. In the absence of gas, the minimum quantity of air required depends under the statute on the number of men to be cared for in a given split or current of air, and again in turn the minimum velocity is the speed at which such quantity passes through a passage of the sectional area existing in each case. Thus in the same mine a velocity of 10 feet at one place may be giving more air than a velocity of 20 feet at another place.

Q. 6. Do you consider that the double entry system gives sufficient room for the proper ventilation of an unbroken boundary of a 1000-acre tract of coal?

A. An unbroken area of 1000 acres may be sufficiently ventilated under the double entry system. The conditions have been already enumerated in the reply to Question No. 2. In case of very active work, or of thin coal or bad roof, an operator often prefers to increase the number of entries and the same result is sometimes obtained by setting aside the nearest parallel rooms for purposes of ventilation.

Q. 7. What ratio should exist between the acres to be developed and the sectional area of the air courses in a mine free from explosive gas?

A. It is not a question of acreage, but of output. For instance: taking actual cases; Mine "A" has an area of 800 acres and an output of 29,000 tons per month; Mine "B" has an area of 1,500 acres and an output of 12,000 tons per month. As the air is required for the health and safety of the men employed, it is evident that no larger area of airway should be required for B than for A, other conditions being equal.

Q. 8. Is it advisable to use masonry or concrete stoppings in cross-cuts in room headings?

A. It is not desirable to use masonry or concrete stoppings in the breakthroughs of subordinate entries from which rooms are turned. Setting aside all consideration of cost, it is safer in case of an explosion to have the stoppings of light construction in the area of active work. The force of an explosion will be more easily dissipated and localized if the stoppings are destroyed. To give an exaggerated comparison: Consider the difference between powder exploded in a gun barrel and the same amount exploded in the open air.

Q. 9. Which is the better method—to use a force fan or exhaust fan in the ventilation of a mine.

A. The question between force fans and exhaust fans is an old one. At the largest mines it is now customary to make air currents reversible. The general practice is to exhaust the air, and the principal argument is that in case of gas the force fan presses it back into the pores of the coal, while the exhaust fan sucks it out, with the result that—if the fan accidentally stops—the gas appears more quickly and is more dangerous where the force fan has been used. It is a matter which may well be left to individual preference.

Q. 10. Note any deficiencies in our State mine law providing for the proper conduct of air through the mines.

A. First. Attention has already been called in answer to question No. 5 to the

ambiguity regarding the supply of air at working places. This should be clearly defined as applying in the absence of gas, to the nearest breakthrough.

Second. The choice of fire boss and the mine foremen is limited under the law to citizens of West Virginia. The object of the law is to procure suitable men and this restriction is positively harmful as well as unjust. It is especially so in regard to fire bosses, as the miners of this state have had very little practical experience with gas. A mine employing an unreliable boss is in more danger than a mine having no fire boss.

Third. The present restriction on the use of oil is a source of positive danger to men employed on moving cars or trips and to all whose duties keep them on the main haulway.

Fourth. In determining the minimum requirement of air for the mine, only the men are counted. It would be well to follow the usual custom and allow 150 cubic feet of air for each mine, as the mule consumes and fouls more air than a man.

Fifth. The distance between breakthroughs is placed absolutely at 80 feet. This may be proper in thin coal, but in thick coal the natural circulation of air is greater than in thin coal and the distance could be made 100 feet. So also when the air current is considerably in excess of requirements the interval might be increased. The multiplication of breakthroughs makes it harder to maintain airways free from leakage, increases the risk of mining and eventually when the mine is worked out and the pillars are drawn, it very materially adds to the waste of coal and to the danger of men employed.

Q. 11. What is the source of the greatest number of fatalities in the mines under your charge?

A. Most of the single fatalities in the mines of this region come from the willful carelessness of the men themselves in working under dangerous slate, instead of pulling it down or setting a prop. They simply postpone doing what is required for their safety till they have finished loading a car or doing some other work.

Q. 12. How many mines under your charge liberate explosive gas?

A. In the Pocahontas field some shaft mines along the western limits of the coal have shown enough gas to be classed as gaseous, and some along the line where the coal goes under water have shown gas at times, so as to require precautions, but generally through the remainder of the district gas is not found.

Q. 13. Do you have all your fans equipped with recording pressure gauges, and what is the advantage of having such recording gauges?

A. Recording pressure gauges are not used. They would have no direct effect in accomplishing the safety of the men, though as a matter of maintaining discipline they might be useful to the mine management, on the same principle as a watchman's clock. They should certainly not be required in mines free from gas.

Q. 14. What is your practice in the removal of or prevention of dust within the mines?

A. The aim in this field is to avoid the scattering of dust on the entries by making the cars tight, and to sprinkle the roadways as required, especially in winter. At the stations where trains are made up, and dust accumulates, it is necessary to load out the dust from time to time.

Q. 15 and 16. To what extent do you permit the use of brattice cloth in the ventilation of any of your mines? In a gaseous mine, to what extent should the use of brattice cloth be permitted?

A. We encourage the use of brattice cloth except for stoppings in breakthroughs.

Q. 17 and 18. Do you consider trap doors essential to the proper ventilation of a mine? What do you think of the advisability of dispensing with all trap doors, other than those operated automatically?

A. We consider trap doors essential. In many cases the automatic doors prove good, but they are not sufficiently reliable to be legally prescribed.

Q. 19. What are the advantages, if any, of having grating doors or gates at the various openings in which men enter, to be securely locked by the fire boss while he is performing his duties of examining the mine, to prevent other employes from entering the mine before he makes his report on the outside?

A. We think it would be better policy to exact a penalty from any man entering the mine unlawfully, than to depend on a locked barrier. It is quite possible



also that men working on night shift would be prevented from leaving the mine if the fire boss had locked the barrier.

Q. 20. Do you experience any trouble in having the mine employes conduct their work in the manner directed by you through your officials.

A. There is occasional trouble in maintaining discipline, just as in other lines of business.

Q. 21. What is your practice in the placing of an inexperienced miner to work within the mine, with a view of guarding his safety?

A. An inexperienced man is placed with an experienced miner.

Q. 22. How do you establish among the non-English speaking employes, as well as native employes, a proper observance of your rules and regulations, and in what way are the employes disciplined?

A. Foreign miners are usually distributed among their country men, or an American is employed as instructor. Discipline is generally either by cautioning with threat of discharge or by actual discharge.

Q. 23. What precaution should be provided within a mine where high tension electric wires are in service, with the view of minimizing accidents?

A. High tension electric current is not carried into the mines; 250 and 500 volt currents are used on the inside. The trolley wire is placed outside of the rail, and feed wires still further to one side of the entry. Feed wires except in high coal are insulated when carried across an entry. Trolley wires in low coal when crossing a passage way may be protected to advantage by a guard on each side.

Q. 24. Are your mine foremen given full authority to discharge a mine employee for infraction of the rules governing the mine, or for other just cause.

A. Yes.

Q. 25. Are the mine employes encouraged to lodge complaint when dangerous conditions arise, and which may not be given proper attention by the foremen in charge.

A. Yes. (See extract from rules attached, especially Rule 6.)

Q. 26. Have you inaugurated any systematic plan of familiarizing your foremen or employes with the requirements of the mine law, and what, if any, is that plan?

A. Distributing mine laws and mine regulations as required by law, in addition to frequent discussion with the foremen of the requirements of the law.

Q. 27. With the view of securing the safety of a miner against falls of the roof, how often should he be visited in his working place by one competent to judge the probability of danger?

A. The miner must watch the roof for his own protection, as danger may arise at any time. The object of supervision—so far as the roof is concerned—is only to instruct the miner and to enforce his attention; not to do the work for him or to direct him step by step. Therefore the legally required visits of the foremen or assistant foremen should be sufficient, with the understanding that the new men not used to the mines, shall be placed under instruction.

Q. 28. In your experience do you find that old, practical miners become indifferent to the necessity of setting timber, and require to be frequently cautioned against their neglect?

A. There seems to be nearly as much liability to accidents among miners who have had several years experience as among those who have worked for only a few months.

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SUGGESTIONS SUBMITTED BY THE OPERATORS AND SUPERINTENDENTS IN THE POCAHONTAS FIELD WHO FILED THE FOREGOING ANSWERS TO INTERROGATORIES.

In considering the general subject of mining legislation we wish to call attention to the tendency of late years toward paternalism. A strong example of this is seen in the laws enacted in some states in regard to shot firing, and in the effort sometimes made to delegate the timber setting to special men. Such laws are debasing in their effect. Under normal conditions a miner acquires experience in his calling, and, if he is a man of in-

telligence with a good common school education, he is in the line of promotion and may look forward to a position as foreman or superintendent; but if he is to be deprived of the opportunity of exercising his skill, prudence and general intelligence, and is to be confined simply to drilling holes and loading coal, he ceases to be a miner and is merely a laborer. If this tendency prevails, where are we to look in the future for timbermen, foremen and fire-bosses? Men who are not competent to care for their own safety are certainly not fitted to look after the safety of others.

The mine operators of West Virginia are not a class of hard hearted taskmasters—regardless of the safety of the men in their employ—and they do not begrudge expenditures necessary to obtain that safety.

1. They desire the safety of the men on humanitarian grounds.

2. In case of an accident they have a sense of personal responsibility—if any precaution on their part could have prevented it—and that, too, without regard to any legal requirements.

3. It is a matter of professional pride.

4. In addition to the above, putting aside all question of legal damages with the annoyance and expense of lawsuits, and coming down to cold blooded business facts, the mere delay and interruption of work in a colliery, caused by a single accident, is likely to cost more than the work that would have prevented it, while any serious disaster may cost thousands of dollars in labor and other thousands in the loss and interruption of business.

We freely admit that there are some operators and many foremen who do not appreciate the precautions necessary for the safety of the mines, but the operators generally wish not only to comply with the law but to go beyond its requirements, when convinced of the advantage.

We would suggest a more frequent interchange of views between the Chief of Inspection and the operators as best leading to the desired results.

We wish to comment on some requirements of the present mining laws and on some supplementary regulations which have been suggested.

Section 10. The number of men to be hoisted in a shaft at one time is limited to ten. The combined weight of the men is less than one ton, though the ordinary working load may be four tons. We do not object to the limit, but consider the fine of \$50 to \$500.00 an excessive one for the eleventh man.

In the same section the operator is liable to fine for hiring a hoisting engineer who proves not sober, but there is no penalty specified for the engineer who becomes drunk while on duty.

Section 11. This section requires 100 cubic feet of air per minute for each person, and as much more as the district mine inspector may require. From the succeeding paragraph it seems evident that reference is made to the presence of gas and to avoid ambiguity we suggest a change so that the reading will be "*and, if gas is present in the mine, as much more, etc.*"

Section 21. There is, perhaps, a misprint where the penalty is mentioned under this section. The penalty is fine *and* imprisonment in the

place of "fine or imprisonment," and nothing is left to the discretion of the court. Several places will be found where the usual clause "in the discretion of the court" has been omitted for no apparent reason.

Section 13. Attention has already been called to the doubtful propriety of requiring the fireboss to be a citizen of West Virginia. If two men apply for the position, the better man should be chosen without regard to state lines.

Section 15. The same may be said of the requirement that the mine foreman shall be a citizen of West Virginia, but in this case the restriction is not equally injurious, as there are many experienced foremen in the state.

Section 15. Paragraph 2. The change already suggested should be made and in the absence of gas the advance measurements should be made at the last breakthrough.

Section 15. Last paragraph. The mine foreman is required to make his inspection of each place "while the miners of such places are at work." This should properly read "during working hours."

Section 21. This section, among other things, requires that in case the ownership of a mine is transferred the agent shall report the tonnage of the year to date, or "failing to furnish the report" shall be guilty of a misdemeanor, etc.

The penalty for an excusable neglect is excessive, and the law should be "failing and refusing to furnish."

Section 25. The statutes of this state are not published and distributed in the various languages spoken within its borders, and ignorance of the English language is not a legal plea. The mining laws require the operators to post their regulations in the different languages spoken even by groups of ten men, and without regard to the question whether such men are capable of reading. These regulations necessarily refer to the mining laws of the state, but no provision is made for the translation of the mining laws or for their official publication in other than the English language.

It is here clearly unjust to require the operators to go beyond the state.

As a matter of fact, for their own protection and for the safety of the mines and of the men employed, the operators will no doubt post translations of the rules in the language generally spoken, but an instance may be given showing the difficulty of a strict compliance with the present law. At the time your committee visited the Pocahontas district there was one mine employing a number of Greeks. It would be a hard matter to find a competent translator, as their Greek is probably very different from that taught in the schools, and neither dialect would contain any equivalent for the technical terms used in coal mining.

OIL REGULATIONS.—We do not understand that these regulations are based on any ground except that the smoke from mixed oils tends to vitiate the air breathed by the miners. So far as black strap is concerned, we agree and consider it a nuisance. In fact it is hardly ever used except when it has been stolen from the supply kept for lubricating purposes.

Where there is a free current of air, we consider the mixture with kerosene allowable, and further we believe the lives of drivers, brakemen and of other men working on the main airways are endangered, when they are forbidden to use such oil.

In many cases the volume of air furnished for the men is double that required by law, and where it is much in excess, we think the ground for the restriction becomes void.

Under the law as it now stands, any operator selling to the miners oil not strictly complying with the test is liable to fine. He has no means of knowing the composition of the oil except through the guarantee of the manufacturer. If the law is to remain in force, the penalty should be only in case he "knowingly" sells.

Where gas is present and safety lamps are required, the law should forbid under penalty all smoking and carrying of matches.

It would be well to specify the precautions to be taken in making cartridges, requiring the lamp to be placed at a certain distance and on the return side. Gross carelessness in this respect is not confined to inexperienced miners, and the only penalty which can now be enforced under the rules of the mine is that of discharge.

Penalties might properly be imposed for drunkenness in the mines, and for the introduction of liquor.

Suggestions have been made by the inspectors as to requiring the use of flameless powder under certain conditions, but from experiments which have been reported to us, we feel that such requirement would be dangerous at the present time, as these experiments indicate the presence of a quite persistent inflammable gas after the use of some of these powders.

In this connection, we would suggest to the mining department the advisability of making analyses of the black powder furnished by manufacturers for mining purposes in order to learn if the proper proportions are adhered to, and if a pure nitrate is used so as to insure complete combustion. This is a matter which can be taken up by the State more properly than by individuals.

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In lieu of formal replies to the interrogatories heretofore referred to, the Committee was furnished with the following, written by Mr. James C. Beebe, General Manager of the United States Coal and Oil Company, Holden, West Virginia:

#### *COMMON SENSE MEASURES FOR PROTECTION TO MINES AND MINERS.*

I have been requested by a number of mine operators in the State, who are familiar with the conditions existing at the Mines of the United States Coal & Oil Company, at Holden, West Virginia, to prepare an article that will assist the Members of the Legislature, and others who have to do with the making of Laws, who are not familiar with mining practices, to get an intelligent idea as to what is necessary in the way

of legislation to protect the lives of the men and the property of the operator.

We are all familiar with the history of the terrible explosions that have taken place in the past eighteen months, and the consequent loss of life. We have all read the opinion, or opinions, of the Inspectors and Experts who have examined the mines after the explosions had taken place. With very few exceptions the reports of these people show that they cannot give any definite cause for any of these explosions, or at least they hesitate to state positively the exact cause, so that it is almost impossible for the mine manager or superintendent to take any particular steps other than those dictated by common sense, and this to be governed entirely by the conditions which obtain at his particular place. As is well known, the conditions vary to such an extent in the different fields within the State, that one set of Laws, or Rules, that would absolutely protect and eliminate the chances for explosion at one place, would be worthless at another point. Consequently, it is almost imperative, if it is necessary to compel operators to adopt safety measures, that in all cases there will be no cast iron regulations which will work hardship or unnecessary expense on the operator.

In this article I am simply giving you a statement of the conditions as they exist at the mines of this Company and a statement of our system of working, ventilation, and precautions taken by us to prevent any chance of explosions.

We may have an explosion—there is always that possibility—but we feel that, if an explosion should take place in the mines of this Company, we have done everything within our knowledge to prevent it.

#### CAUSES OF EXPLOSIONS.

In our estimation there are three primary causes for explosions in mines—the presence of gas, gas and dust combined, or dust alone. In this first instance if the air traveling contains methane gas to the extent of  $5\frac{1}{2}$  to 7 per cent., it has been proven by numerous experiments to be an explosive mixture, which can be lighted by a naked light. This condition is taken care of in many instances by large quantities of air being introduced, so that the gas will be diluted to less than the necessary percentage for an explosive mixture. In order to do this the mine becomes, a great many times, what has been termed, over ventilated, and in the opinion of a number of practical mining men this over-ventilation is one of the causes of the recent disasters, their theory being that the increased speed of the air current picks up the dust, also causing the rapid drying out of the mine. They may be perfectly correct in this assumption, but this condition is completely off-set by the proper amount of water being introduced into the mine.

In the second instance it has been found by experiment, that the presence of a small quantity of gas, say from  $1\frac{1}{2}$  to 2 per cent., with the coal dust, will form an explosive mixture. The whole question then resolves itself down to two requirements to reduce the possibilities of explosion. In gaseous mines there must be air enough traveling to keep the gas diluted and in dusty mines enough moisture, either present or

introduced, to keep the dust completely wet, consequently impossible to ignite from a windy, or blown-out shot, which, it is well understood, is the principal cause of explosion. It being also understood that the windy shot develops enough gas in itself, which combined with the dust, makes an explosive mixture. It has been noticed that most explosions occur during the winter months, and that in explosions due to gas principally, there had been a decided drop in barometric pressure. This condition of low barometer has simply the effect of reducing the pressure inside the mine as well as out, thereby causing an increased flow of gas. In the winter months the low barometer has practically no effect on the saturation of the inside air, even though a low barometer on the outside is accompanied by a high saturation of the atmosphere. I mean by this that where air is completely saturated and raised a number of degrees in temperature, it makes but very little difference whether the air is completely saturated to start with or completely dry. For instance, air at 22 degrees completely saturated, when raised to 60 degrees is only saturated to 14 per cent. Consequently water must be present or introduced to off-set the higher temperature.

#### METHOD OF MINING.

The method of Mining used by this Company, is the Room and Pillar System. Main entries and all face entries are driven on 60 foot centres. Butt headings are driven on 40 foot centres, so that it is not necessary to lay track into the break-throughs. All entries are driven 12 feet in width with break-throughs every 80 feet, and all break-throughs are driven 12 feet wide. Rooms are turned on butt entries on 62 feet centres, driving a 45 foot neck 12 feet wide, and widening out at the jaw to 26 feet. Breaktroughs in rooms are 12 feet wide and turned every 80 feet. The sidings for each set of butt entries are laid in a place 20 feet wide, which is driven in the barrier pillar between the face entries and the first room of each set of butt entries, making what we term a "buried side track." All rooms are driven 270 feet long. Face entries turned every 145 feet.

#### METHOD OF VENTILATION.

Both our No. 1 and No. 2 Mines are ventilated by Clifford-Capell 131½x7 foot Fans, which are exhausting 116,000 cubic feet of air per minute, while making 112 revolutions per minute, against 1.3 inches water gauge. These fans are driven by induction motors of 125 H. P., and will move 300,000 cubic feet of air per minute against a 6 inch water gauge at 300 revolutions per minute. Recording gauges are attached to each fan which show exactly what the fan is doing every minute in the day or night—these records being on file in our office.

Our system of working is such that it would seem to us that an explosion on one set of face headings would not affect the air seriously on the others, as each set is practically a mine in itself, with its individual current of air from the mains. We believe thoroughly in splitting the air instead of trying to force the same current through all the working places, a practice followed in many mines in this State; as before it has traveled half the distance necessary it is foul, thick with smoke,

and unfit to breathe. No butts are driven through to the next set of face headings for convenience sake, as is often done. This, in our estimation, reduces the liability of an explosion affecting any territory than on the split. And has the further advantage in case, for instance, that a quantity of gas is present in any certain face entry, we have the power to turn in all air necessary to sweep it out without carrying it to any other part of the workings.

Our air is split at each face heading, leading off from our main intakes, giving us fresh air on each set of face headings; quantity being controlled by regulators. Our stoppings are carried right up to the minute, and are put in immediately after the next break-through ahead is completed. Doors two feet square are put in over-casts and brick stoppings at intervals, to enable inspection of the return air ways. On butt entries, stoppings are made of inch boards, as the time necessary for this stopping is of short duration. Regulators are introduced where necessary, with sliding doors. We do not cut the flow of air from any of our old workings, but keep a good flow through them the same as if they were working. The return air can also be used to ventilate the old and abandoned workings, so there can be no chance for an accumulation of dangerous gases.

Although our mines are considered non-gaseous—in fact we have no gas to any appreciable extent—we know that we are liable to run into a pocket, or bleeder, at any time, consequently we keep air enough moving to render gases harmless in case we should strike them. The air at our last break-through is always from three to fifteen times as much as required by law, with a velocity of 150 to 200 feet per minute.

Face entries have only four pairs of butts and the butts are short, so that with an air velocity of 200 feet per minute the smoke is swept out in a very short time.

#### SYSTEM OF WORKING.

The system of working as shown by Nos. 1 and 2 Butts off the face entries both right and left, consisted of Three Face Entries and Two Butt Entries. It provided originally for a split at each set of Butts, requiring the construction of at least one over-cast per split. Switching for each set of Butts was done on the entry itself. This system was superseded in October, 1905, by the one shown by Nos. 3 and 4 Butts on the left and No. 4 Butts on the right of the first face entries and as started on the first Butts both left and right of the second face entries, which consisted of two face entries and three butt headings, middle one being return air course. This system provided for fresh air on each butt entry, but it required two splits and one over-cast for every set of butts, giving each working entry a switch of its own instead of one switch for each set of butts. Centres on rooms have been changed from 41 feet to 62 feet, width of rooms have been increased from 21 feet to 36 feet. The percentage from wide to narrow work remains approximately the same, and machine runners save time moving machines, having but two-thirds as many rooms per panel as before.

## SNUBBING OF COAL.

Men are compelled to snub, or bear in on the bottom coal after the place has been cut by chain machine, taking from one to two feet of coal back nearly to the solid. The men are obliged to load out the dust made by the machine and the mining after snubbing, *before shooting the place.*

## TOOLS.

We allow no augers of more than six feet in length to be used.

We are using seven foot under-cutting machines and by limiting the length of the augers we eliminate the danger of the miner putting the hole back into the solid. No miner is given a working place unless he is provided with copper tipped tamping bar and copper needle.

## EXPLOSIVES.

As to the kind of character of explosives to be used, the legislature of the State of West Virginia, or any other state, cannot form any opinion as to what is best, nor can they be assisted to form an intelligent opinion at this time, as the scientists and so-called experts have, as yet, been unable to decide themselves as to the safety of this, that or any other explosive. We are all perfectly familiar with the use of black powder made by people of long experience, and when shown by test to be of proper grade, and used in the manner described in this article, for our part, we can but say that the liability of windy or blown out shots is practically wiped out.

So far we are satisfied that FFF black powder is the proper explosive to use in our mines. The so-called "Flameless" and "Smokeless" powders offered on the market to-day do not appeal to us, although we are going to continue our experiments, and it may be that some explosive will be found that we think will be better than the FFF black powder.

We exercise a very careful supervision over the quantity of powder taken into the mines, compelling the men to have what is commonly known as a "Powder Jack," with a capacity of five pounds. Any man taking a greater quantity in the mine is immediately discharged and prosecuted.

## MINE SUPERVISION.

Our No. 1 and No. 2 Mines have a foreman and assistant and two patrol bosses each, making four men who are on the move all the time, and with a reliable track man on each set of face headings, the miner has very little chance to violate our rules. Our night bosses visit every working place every night to see that they are in good condition, and oversee the sprinkling.

The duties of our patrol bosses are to patrol the working places constantly and see that none of our rules are violated. They supervise the boring of holes as to the position, quantity of powder used, making cartridges, in fact are competent instructors, and extremely necessary and valuable as we are forced to employ ignorant labor. The patrol bosses have instructions to send out immediately any man they find doing anything dangerous to himself or others.



In case of a green or new man going to work, his tools are examined, and if found all right he is placed in charge of either the mine foreman or one of his assistants and taken to the place where he is to work. He receives his instructions and is watched until he understands our rules and methods of working. Frequently we put the green man under the charge of an old experienced miner, in which case he is visited but two or three times a day, otherwise he is not left alone until his shots are fired. Consequently, our men are all shot firers and we do not require political appointees to do this work.

The men are required to take twenty minutes, at least, between shots, thereby giving the air a chance to clear and what little dust there may be raised, time to settle before another shot is fired.

Our track men on each set of face headings, have instructions to notice, while at work, and report at once, any one violating the rules.

The Mine Foremen, or their assistants, go over their mine at least once daily; the foreman himself, making, at least one visit each week to every part of the workings.

Records of air measurements and all other readings are kept at our main office and copy retained by each Mine Foreman.

#### OVER-CASTS AND METHOD OF BUILDING.

Our over-casts are made with brick, sand and cement 18 inch side walls, 4½ feet high, arched over with 12 inches of sand, cement and brick, which is covered with a layer of sand and cement.

#### TAMPING MATERIAL.

Almost every coal mine has a clay bank in its immediate vicinity, while many mines have clay floors, so that as a general thing the material is not difficult to obtain. We are particularly fortunate in having a good brick material, also in having a dry pan with which we grind it and place it in the mines in its dry condition in boxes holding about two tons, placed at convenient points, the men taking such quantity as they require and mixing it with water from their jugs when they are ready to tamp. We estimate the cost of furnishing clay for tamping at about one-fifth of one cent per ton of production.

#### MINE WIRING AND LIGHTING.

Our trolley wires are protected by strips of wood where the men have to pass under them, and lights are placed at the end of the line and at all crossings and switches, which burn as a warning that power is on the line. Rubber covered wire is used for all machinery except the locomotives. The trolley wire is on the right hand side of track near the rib. Miners do not have to travel motor roads when the motor is running on them. All entries are lighted up when the motor is expected.

There is no power on any of the trolley lines, excepting on the main, until the motor leaves the main, when an automatic breaker turns the power into the face entry into which the motor has started, and at the same time the signal lights go on, warning the miners that the power is on the line. Upon the motor leaving the face entry the circuit breaker

cuts the power out automatically so that the miner knows there is no danger from contact with the trolley wire: in other words, when the entry is dark the men know that the line is dead. Notwithstanding this, the men are all cautioned and understand that whether the lights are on or not, *the wire is to be considered a live one.*

#### ACCIDENTS.

The following is a complete record of the Serious Accidents that have taken place at all the operations of this Company since we commenced to ship coal, January, 1905.

On May 20th, 1906, George Fighner, an electrician, who was wiring in the mines, attempted to mount a rapidly moving trip of cars, lost his footing and was instantly killed by the cars passing over him.

On June 24th, 1907, J. D. Johnson, a colored miner in No. 2, was killed by the falling of a small piece of slate. This accident, of course, was absolutely unavoidable and no precautions on earth could hinder it.

On December 17th, 1907, our Chief Electrician, Harry I. Fitch, was killed by being caught in the gear wheel at our No. 3 Tipple while examining a motor which operated the shaker screens.

Aside from the above we have had no serious accidents, and the injuries received by our men have been very slight and caused principally by their own carelessness.

The one man, Johnson, is the only man who has been killed in our mines who was engaged in actual mine labor. This man being a coal loader.

During the three years we have produced nearly a million and a quarter tons.

#### HYGROMETER, ANEMOMETER, THERMOMETER AND BAROMETER READINGS.

Our air readings are taken on the 1st and 15th of each month in all mines. At the same time we take Hygrometer readings as to humidity, using what is called a "Hair Hygrometer." This instrument is almost always accurate, but in order to insure accuracy, we check it against the dry and wet bulb thermometer.

In taking our air readings, we use Anemometers of the latest and most approved pattern, yet to be positive that these are correct, we check them by the old fashioned method of Powder Flash.

Barometer and Thermometer readings are taken at same time.

#### STOPPINGS AND METHOD OF BUILDING.

We build in all main and face entries brick stoppings of 9 inch wall laid in cement and sand and 1 inch of cement and sand on side of stopping next to inlet.

#### BURIED SIDE TRACKS.

Buried side tracks, driven off the heading, to take care of coal from the butts, are not only an advantage to haulage, but to ventilation also, as they keep all standing trips off the intakes and air courses so that the air always has its full heading area in which to travel.

Automatic doors are placed in all face entries between each butt and

parallel entry, thereby dispensing, to a great extent, with the ever unreliable trapper.

#### SPRINKLING.

We estimate the cost of watering our mines at about one-half of one cent per ton of production. The principal expense being in sprinkling from the first of September to the first of May, as during the other months the entries are sweating and we do not have to sprinkle them so much, but the rooms are sprinkled the year around. Our sprinkling is done with a car that sprays the roads and sides of the roadways. In the rooms where we cannot haul the car, our men use buckets to throw it around on the face and sides where the dust may lodge, but we are now equipping our water cars with a force pump to do this work.

Our hygrometer readings tell us accurately the amount of humidity in the air, and in case it falls below 90 per cent we put water enough in the mines at the point where the reading is made to put it up to between 90 and 100 per cent., or complete saturation. No matter what the atmospheric conditions are outside, either of thermometer or barometer, this standard of humidity is maintained. The temperature of our mines runs from fifty-six to fifty-nine degrees Fahrenheit. We feel positive that it will be impossible to have a dust explosion if the air in all mines is in this condition.

#### CLEAN HAULAGE WAYS AND AIR COURSES.

We allow no old ties, gob or refuse of any kind to lie in our haulage ways or air courses, thereby eliminating what to us is one of the most dangerous practices in mines to-day, as all of these obstructions are nothing more or less than traps to catch the almost impalpable dust that is so dangerous, causing it to accumulate in quantities, which, in connection with a blown out shot, will prove disastrous.

#### TO SUM IT ALL UP.

We consider that with the use of the Copper Tipped Tamping Bars, Copper Needles, using clay for tamping, and not under any circumstances allowing the hole to be bored back to the solid, or started close enough to the rib so it lays on the solid at the end of the hole, that we almost entirely do away with the danger of blown-out shots.

Now the object of this pamphlet is an effort on my part to familiarize the members of the legislature and others with the actual conditions at what we consider an ideal mining operation. We have adopted such measures and precautions as seem to us best to protect the life of the worker in the mines. It may be that our ideas do not coincide with the ideas of other mine-managers of greater or longer experience. As this pamphlet may find its way to the hands of these men, we will say in passing that we are open to conviction and will appreciate an expression from them on any points in which they may differ with us, and we will gladly receive and appreciate any ideas which they care to give us.

We think we are working with every sensible operator in the United States for the betterment of the conditions and better protection of the men who are working for us, and to protect both them and ourselves

from the disasters and terrible calamities which have befallen the mining interests in the past twelve months.

If we must have legislation, let it be wise, and it is my aim with this article to impress upon the minds of the people who make the laws, that the precautions taken by us, in connection with the mining laws which now exist, constitute as nearly a perfect system for the prevention of accidents as possible, and if the mine operators of this country have to be compelled by law to protect the men, let such a law be framed as will embrace the points set forth in this article, and I am convinced that any intelligent miner in the United States would say to you that this is all he asks.

The mine operator, for *less than one cent* per ton of his production, can almost insure the safety of his employes, and they will be in no more danger, nor as much in many cases, as the carpenters, builders, roofers, painters, or workers in any other trade whose work keeps them in the open air.

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#### OUR "COMMON SENSE" PROTECTION.

1. Vigilant Supervision of Ignorant Labor.
2. Tamping with Clay.
3. Prohibition of any Needles, except Copper.\*
4. Prohibition of any Tamping Bars, except Copper Tipped.\*
5. Compulsory Snubbing of Coal Before Shooting.
6. Employment of Patrol, or Shooting Bosses, not SHOT FIRERS.
7. All Break-Throughs cut the same size as Air Courses.
8. Sprinkling of Road Ways and Rooms.
9. Compulsory removal of all dust from coal cutting machines BEFORE Shots are fired.
10. Particular attention to position of holes, and the amount of powder used.
11. Strict enforcement of mining laws enacted by the State of West Virginia.
12. Area of Over-casts in all cases the same as all Entries.
13. All parts of Mine Workings, whether old or new, visited by the Mine Foreman, or his Assistants, every day, and a personal visit by the Mine Foreman himself to every working place, at least once a week.
14. Prohibition of the use of coal dust for Ballasting Mine Tracks.
15. Requirement of twenty minutes between shots in any working place.
16. We check all men in and out of the mines under all circumstances, from the General Manager down to the Trapper.
17. Haulage ways and air courses kept absolutely clear of rubbish.
18. The GLAD HAND always extended to Mine Inspectors.

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\*For the benefit of the uninitiated, will say that Steel Tamping Bars and Needles will, when they strike a sulphur ball in the hole, sometimes make a spark that will ignite the powder while this is impossible with copper.

*INSTRUCTIONS TO DISTRICT INSPECTORS, SAMPLE COPIES OF  
BLANK REPORTS, &c., ISSUED BY MINE DEPARTMENT.*

[Referred to in the testimony of J. W. Paul, Chief of Department of Mines, at page 619.]

GENERAL INSTRUCTIONS THAT HAVE BEEN GIVEN EACH INSPECTOR.

"Wherein you find that the certificates of inspection or forms for recommendations are not sufficient to cover any feature at any mine, you will take care to add any additional information in regard to the condition of the mine that may not be itemized on the form, and you will—where you deem it necessary—take up these matters by letter with the operators of the mines as well as furnish this office copies of the same in order that I may be fully in touch with the work you are doing."

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DEPARTMENT OF MINES,  
STATE OF WEST VIRGINIA.

—O—

*Shooting on the Solid.*

CHARLESTON, March 10, 1908.

*To All Inspectors:*

Where you find that coal is being shot on the solid in any mine you may inspect, you will give written instructions to the operating company prescribing the conditions under which such solid shooting may be done, retaining a copy and furnishing this office with a copy, confining the contents of the communication to the subject of solid shooting.

Insist upon an immediate written agreement on the part of the operating company to comply with your instructions.

You will return to the mine at an early date thereafter and if your instructions are not being fully complied with you will proceed to close the mine as outlined in section 16 of the mine law.

Where you have occasion to prescribe the use of safety powder, and where it is impossible to secure it immediately you will require that shot firers be employed to shoot the coal when all the men are out of the mine, until such time as the safety powder is secured.

Please acknowledge.

Very respectfully,

JAS. W. PAUL,

*Chief of Department of Mines.*

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DEPARTMENT OF MINES,  
STATE OF WEST VIRGINIA.

—O—

*Mine Foremen's Record Books,  
Fire Bosses' Record Books.*

CHARLESTON, March 11, 1908.

*To All Inspectors:*

At any mine in your district where you find that the proper records of

mine foremen or fire bosses are not kept, you will proceed to bring prosecutions for violation of the law against those persons or operators at fault.

Very respectfully,

JAS. W. PAUL,  
*Chief of Department of Mines.*

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DEPARTMENT OF MINES,  
STATE OF WEST VIRGINIA.

—o—

*Second Openings.*

CHARLESTON, March 11, 1908.

*To All Inspectors:*

To make certain that your instructions as well as the laws are being fully complied with in reference to a second opening being available and kept clear of obstructions, you will visit such mines at your earliest convenience, where no second opening has as yet been provided and see that not more than 20 persons are working in any shift, and give written instructions to the operator of the mine to exercise due caution in complying with the provisions of the law, obtaining a written promise for a compliance during your absence from the mine. Where you find the second opening obstructed so as to prevent travel therein you will exercise the same vigilance.

At any mines where you find such violations you will institute prosecutions and at the same time proceed to close the mine.

Very truly yours,  
JAS. W. PAUL,  
*Chief of Department of Mines.*

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March 21, 1908.

MR. R. S. LA RUE,  
*Mine Inspector,*  
*Fairmont, W. Va.*

DEAR SIR:—I am mailing to each operator a copy of the enclosed letter relative to mine maps.

You will please not accept any mine map that does not meet the requirements of the law.

Very truly,  
JAS. W. PAUL,  
*Chief of Department of Mines.*

## MINE MAPS.

—o—

DEPARTMENT OF MINES,  
STATE OF WEST VIRGINIA.

CHARLESTON, March 12, 1908.

*To the Coal Operators of West Virginia:*

GENTLEMEN:—Your attention is called to a provision of Section 5 of the Mining Law which, in part, says

....such map or plan shall show the openings or excavations, the shafts, slopes, entries, airways, WITH DARTS OR ARROWS SHOWING DIRECTION OF AIR CURRENTS,.....

You will please have placed on all maps furnished the District Inspector the direction of the air currents as noted above.

District Inspectors are authorized to reject any map that does not give this information.

This letter is intended only for those operators which have failed to make their maps to comply with the law.

Very respectfully,

JAS. W. PAUL.

*Chief of Department of Mines.*

## AIR CHECKS.

—o—

DEPARTMENT OF MINES,  
STATE OF WEST VIRGINIA.

—o—

CHARLESTON, March 13, 1908.

*To All District Mine Inspectors.*

The mine law requires that as the excavations advance break-throughs for air shall be made at distances not to exceed 80 feet, or brattice shall be used so as to properly ventilate the working faces.

Checks are also required to be used so as to divert the air current into the rooms.

Where the Inspector finds that checks are not in use on the entries, and the air current is not being diverted into the rooms, he will—under authority of law vested in him—order the men out of the rooms and give written notice to the operator to keep the men out until such a time as the law is complied with. For failure to observe this provision of the law the Inspector will prosecute those responsible for the violation of the law.

Very respectfully,

JAS. W. PAUL.

*Chief of Department of Mines.*

DEPARTMENT OF MINES,  
STATE OF WEST VIRGINIA.

—o—

CHARLESTON, W. VA., April 18, 1908.

*Circular of Announcement.*

—o—

Announcement is hereby made that effective this date Mr. John G. Ross is made Office and Field Assistant to the Chief of the Department of Mines.

Mr. Ross has had practical and theoretical training in coal mining, being a graduate of the engineering department of our State University and of Columbia University, New York, and has made coal mining and mine explosions the subject of special inquiry and study, and it is hoped that the efficiency of the Department may be advanced through the introduction of his services with the injection of such new vigor as he may possess.

Mr. Ross will be confined principally to office work during the absence of the Chief and at times will be detailed to do special field work.

In the absence of sufficient funds for the proper execution of the functions of the Department, the Governor has kindly volunteered to lend the financial aid necessary for the employment of this additional service.

During the month of May the Department will begin the issuance of a monthly Bulletin which will have for its purpose the dissemination of instructions issued to the Inspectors; the reports on accidents occurring at and within the mines; a review of the condition of the mines as inspected and reported upon by the Inspectors; the number and nature of prosecutions had by the Department; opinions of the Attorney General, and, in short, to make public the condition of the mining industry within the State with the view of the betterment of conditions within the mines, and securing co-operation in the observance of our mine laws.

These Bulletins will for the present be given general free distribution.

Very respectfully,

JAS. W. PAUL.

*Chief of Department of Mines.*

DEPARTMENT OF MINES,  
STATE OF WEST VIRGINIA.

—o—

CHARLESTON, May 4, 1908.

*To Each District Mine Inspector.*

We feel that the operators and miners have had ample time to become familiar with the law, and that they should now be prepared to comply fully with its requirements.

Therefore where the coal company has posted rules and regulations for the government of its mine or mines and you find men working in violation to the same bring prosecutions at once. This applies particu-



larly to shooting on the solid, and in general to the rulings of this Department of July 1st, 1907.

I would like to call your attention, especially to my previous letters of instruction; to that section of the law regulating the number of men on one split in the air current; also those sections in regard to refuge holes.

Very truly,

JAS. W. PAUL,

*Chief of Department of Mines.*

By J. G. ROSS,

*Office and Field Assistant.*

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DEPARTMENT OF MINES,  
STATE OF WEST VIRGINIA.

—o—

—————, W. VA. ————— 1909—

GENTLEMEN:—I wish to call your attention to Section 5 of the mining law relative to furnishing the District Mine Inspector copies of your mine map.

As yet I have not been furnished a copy of the map of your.....

I would suggest that you arrange to furnish maps of your mine during January and July.

While this matter may not have been impressed upon you heretofore, I will be compelled to exact a full compliance with the law in this matter.

A failure to meet this requirement will result in an effort upon the part of the State to prosecute all operators who fail to meet the requirements of the law.

Very truly yours,

*District Mine Inspector, — District.*

Approved:

J. W. PAUL,

*Chief Mine Inspector.*

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DEPARTMENT OF MINES, STATE OF WEST VIRGINIA.

CERTIFICATE OF MINE INSPECTION.

In compliance with law I have inspected the .....mine located at ..... in ..... county, operated by ..... and found it to be in the following condition, on the.....day of .....190...

- 1 As to VENTILATION and its distribution to working face .....
- 2 As to DRAINAGE .....
- 3 As to COAL DUST .....
- 4 As to ROOF and TIMBERING .....
- 5 As to EXPLOSIVE GAS and BLACK DAMP .....
- 6 As to BREAK-THROUGHS and STOPPINGS .....
- 7 As to DOORS and BRATTICE .....
- 8 As to OIL used .....

- 9 As to MACHINERY and APPLIANCES .....  
 10 As to ELECTRIC WIRES .....  
 11 As to DANGEROUS PRACTICES .....  
 12 As to INGRESS and EGRESS .....  
 13 As to GENERAL SAFETY .....

Very respectfully, ..... Mine Inspector .....Dist.

Date of Inspection .....190...

- 1 Entered mine .....M. Came out of mine .....M  
 2 Name of mine ..... County .....  
 3 Name of Operator .....  
 4 Post Office address of mine .....  
 5 Name of coal .....Kind of opening .....  
 6 Name of Supt. ....  
 7 Name of Mine Foreman .....  
 8 Name of Fire Boss .....  
 9 .....  
 10 How is mine ventilated ..... Diam. of Fan ..... R. P. M. ....  
 11 No. of Splits in current .....  
 12 Cu. air at intake ..... at outlet .....  
 13 Cu. ft. air at .....  
 14 Cu. ft. air at .....  
 15 .....  
 16 Maximum No. employes in one split .....  
 17 Does the mine liberate explosive gas .....  
 18 Is the mine dry ..... Is the mine dusty .....  
 19 How many shifts work each 24 hours .....  
 20 No. persons working on each shift.....Horses.....Mules.....  
 21 Pick Miners ..... Day hands inside ..... Drivers .....  
 22 Machine miners.....Machine operators ..... Machine helpers.....  
 23 Day hands outside ..... Coke workers ..... Ovens in blast .....  
 24 No. Mine machines ..... Power used on machines .....  
 25 Date of last extension of map in your possession .....  
 26 Did you examine records of Mine Foreman .....  
 27 Did you examine records of Fire Boss .....  
 28 Are the records properly made out and signed .....  
 29 Does the second opening meet lawful requirements .....  
 30 Voltage on Electric wire in mine .....

# RECOMMENDATIONS FROM THE DISTRICT MINE INSPECTOR, STATE OF WEST VIRGINIA.

Name of Mine ..... at .....  
 County of ..... , Operated by .....  
 Gentlemen;

On the ..... day of ..... 190.... I inspected the above mine. Attached hereto you will find Certificate of Inspection, a Duplicate of which I have posted at the mine.

In addition to the information contained on said Certificate, I find the law is not fully complied with in the following respect: .....

To remedy the physical condition of the mine I recommend: .....

Very respectfully, ..... Mine Inspector .....Dist.  
 Date .....190.... Address .....W. Va.

STATE OF WEST VIRGINIA, DEPARTMENT OF MINES.

Report of ..... Mine Inspector for District  
No. ...., Month of .....190... Date of Inspection.....  
190...; Entered Mine .....M. Came out of Mine .....M.  
2. Name of Mine .....County where located.....  
3. Name of operator..... 4. P. O. of Mine.....  
5. Name of coal bed .....Thickness.....Kind of opening—Drift, slope,  
Shaft ..... 6. Supt..... 7. Mine Foreman.....  
8. Fire Boss .....  
10. How ventilated.....Diam. of Fan.....R. P. M.....Force or Exhaust.....  
11. No. of splits in current..... 12. Cu. ft. air at intake.....at outlet.....  
13. Cu. ft. air at ..... 14. Cu. ft. air at .....  
15. Cu. ft. air at ..... 16. Max. No. of employes in one split.....  
17. Is explosive gas liberated ..... 18. Is mine dry.....Is mine dusty.....  
19. How many shifts work each 24 hours .....  
20. No. persons on each shift.....; Horses..... Mules.....  
21. No. Pick miners ..... Day hands Inside ..... Drivers .....  
22. Machine-miners ..... Operators ..... Helpers .....  
23. Day hands outside....., Coke workers....., Oven in blast.....  
24. No. Mine-machines ..... Electric Comp. air .....  
25. Date of Mine Map in Inspectors possession .....  
26. Did you examine Mine Foreman's Record .....  
27. Did you examine Fire Boss' Record .....  
28. Are the records properly made and signed .....  
29. Does the second opening meet lawful requirements .....  
30. Voltage on electric wires in mine .....

THE MINE WAS FOUND TO BE IN THE FOLLOWING CONDITION.

- 1. As to VENTILATION and its distribution to working face .....
- 2. As to DRAINAGE .....
- 3. As to COAL DUST .....
- 4. As to ROOF and TIMBERING .....
- 5. As to EXPLOSIVE GAS and BLACK DAMP .....
- 6. As to BREAK-THROUGHS and STOPPINGS .....
- 7. As to DOORS and BRATTICE .....
- 8. As to OIL used .....
- 9. As to MACHINERY and APPLIANCES .....
- 10. As to ELECTRIC WIRES .....
- 11. As to DANGEROUS PRACTICES .....
- 12. As to INGRESS and EGRESS .....
- 13. As to GENERAL SAFETY .....

Was a certificate posted at the mine ..... Date of certificate furnished  
operator ..... In addition to the information contained on  
said certificate, I found the law not fully complied with in the following respect:

RECOMMENDATIONS.

To remedy the condition of the mine I recommend:  
.....  
.....  
.....

Form A. Received at Charleston.....	
DISTRICT MINE INSPECTOR'S REPORT FOR THE MONTH OF .....	190.....
District No.....	
..... Mine	
Operator .....	
County .....	
Inspector .....	
THE DATE OF THIS INSPECTION IS .....	190.....
Record Book .....	Page No. ....

Check by Chief of Department.

## REMARKS:

.....

.....

.....

.....

## DEPARTMENT OF MINES, STATE OF WEST VIRGINIA.

## PROSECUTIONS.

STATE OF WEST VIRGINIA vs. .... (Name of person, firm or corporation.)

Name of operating Company .....

Name of Mine ..... Postoffice .....

County where located .....

Occupation of person prosecuted .....

Before what Court of Justice was case brought? .....

On what date was complaint entered? .....

On what date was trial had? ..... Where? .....

What complaint was made by the Inspector? .....

.....

Who were the witnesses for the State? .....

.....

How many witnesses appeared for the defense? .....

What attorney appeared for the State? .....

What attorney appeared for the defense? .....

Was the defendant convicted? .....

What was the fine or sentence imposed? .....

Remarks: .....

.....

Send each month one form for each person, firm or corporation prosecuted, to the office of the Chief of Department of Mines.

DEPARTMENT OF MINES,  
STATE OF WEST VIRGINIA.

PROSECUTIONS.
Month of ..... 190...
County of .....
Mine District No. ....
Inspector .....
Against: .....
For violation of sections.....
.....
Convicted (yes or no)? .....
Before whom or what court? .....
.....
.....

DEPARTMENT OF MINES, STATE OF WEST VIRGINIA.

..... W. Va. .... 190...

Name of Operator of Mine.

RE. STOPPINGS.

Gentlemen:—

On the ..... day of ..... 190..., I inspected your.....  
..... mine in ..... County and approved the character  
of stoppings being used in the mine in the following places, to-wit: .....

I disapprove the character of stoppings being used in the mine in the following  
places, to-wit: .....

I recommend that you at once reconstruct these stoppings out of .....

Inattention to this notice will compel me to resort to legal proceedings.

Very respectfully,

*District Mine Inspector.*

(Furnished to each mine operator and officials.)

FEATURES OF THE MINE LAW.

1907.

—o—

1. Department of Mines in charge of Chief of Department of Mines, formerly Chief Mine Inspector. See Section 1.
2. District Mine Inspectors appointed by the Chief of Department of Mines. See Section 2.
3. Inspection districts increased to twelve. See Section 4.

4. (a) Operators to furnish map of mine on a scale of 100 or 200 feet to the inch. See Section 5.
- (b) Direction of air current to be indicated on map by arrows. See Section 5.
- (c) Plans of all new development to be furnished the District Inspector previous to making the development. See Section 7.
- (d) Department may have survey of mine made if maps are not furnished, or if map so furnished is believed to be inaccurate. See Section 6.
- (e) Operators to pay costs if original map is inaccurate. See Section 6.
5. (a) After August 22, 1907, the mine foreman shall instruct each person employed within the mine as to the particular danger of his work and furnish him a copy of the mine law and rules of the mine. See Section 8.
- (b) Every inexperienced person employed shall work under the personal direction of the mine foreman or other experienced mine worker. See Section 8.
- (c) Two openings required at all mines each to be available to travel of men. Not over twenty persons allowed to work in any mine having but one opening. See Section 8.
6. (a) Metal speaking tube from top to bottom of shaft. Other means of signalling required. Safety catches and hoods on cages. Safety gates at top of shaft. Adequate brake on hoisting drum. See Section 9.
- (b) Hoisting machinery to be inspected once each day. See Section 9.
- (c) Traveling way around bottom of shaft required. See Section 9.
7. (a) Sober engineers to be in charge of hoisting machinery. See Section 10.
- (b) No more than ten persons shall ride on any cage or car at one time. No person allowed to ride on loaded car or cage in any shaft or slope. See Section 10.
- (c) Slopes, haulways and motor roads used for travel shall be made sufficiently wide for persons to pass moving cars in safety. See Section 10.
- (d) Or refuge holes, kept whitewashed, shall be made on one side not 60 feet apart. See Section 10.
- (e) No person shall travel on slope, engine or motor roads when other roads for travel are provided. See Section 10.
8. (a) Ventilation.—In non-gaseous mines 100 cubic feet of air per minute for each employe required, or as much more as may be required by the District Inspector. Air shall be conducted to face of all workings. See Section 11.
- (b) Break-throughs shall be not over 80 feet apart in headings and rooms in the same pillar. See Section 11.
- (c) Stoppings to be constructed and made of material approved by the Inspector. See Section 11.
- (d) After August 22, 1907, the air current shall be split so as to not allow over 60 persons to be in the same current. Cases where 80 persons may be permitted in the same current. See Section 11.

- (e) No person allowed to work where the air current is less than 100 cubic feet of air per minute. See Section 11.
  - (f) Dust in all mines shall be prevented from accumulating and mine kept watered down. See Section 11.
  - (g) Powder to be taken into mines in five pound metallic cans. Quantities of explosives limited. See Section 11.
- 9 (a) In gaseous mines,—Minimum ventilation 150 cubic feet per minute for each person or as much more as the Inspector may direct. See Section 12.
- (b) Stoppings to be made of material approved by the Inspector. Doors to be avoided. Overcasts made of incombustible material. See Section 12.
  - (c) Safeguards to be used in worked out or abandoned parts of the mine. Prevent overflow of standing gas. Unlawful for any unauthorized person to enter such parts. See Section 12.
  - (d) Twenty minutes shall elapse after shot before miner shall re-enter working place. See Section 12.
  - (e) Workmen shall be withdrawn from mine when ventilation is disturbed. See Section 12.
10. (a) In gaseous mines the ventilation to be produced by a fan, which shall be run day and night. See Section 13.
- (b) Fire Boss to be employed. Shall understand gases and their detection. Shall understand ventilation. Three years' experience in gaseous mines; his duties. See Section 13.
  - (c) Danger signal to be displayed outside of mine. Shall begin examination within three hours before each shift enters mine. Evidence to be left in working places. Shall make written report in book. See Section 13.
  - (d) Unlawful to enter mine until signal has been displayed. See Section 13.
11. (a) Safety lamps to be used exclusively in gaseous mines, except by permission of Inspector. See Section 14.
- (b) Safety lamps to be in charge of a special person. See Section 14.
  - (c) At all mines two safety lamps shall be kept. See Section 14.
12. (a) Mine foreman;—his duties,—Shall have had five years' experience in coal mines. See Section 15.
- (b) Shall keep careful watch over ventilation; attend to breakthroughs; loose top; furnish props and timbers. Employes to notify mine foreman when in need of props. Miners shall prop the roof. Water to be removed from the mine. See Section 15.
  - (c) Cross-cuts to be driven. See Section 15.
  - (d) Check doors to be used to ventilate rooms. See Section 15.
  - (e) No room to be turned off ahead of the ventilating current. See Section 15.
  - (f) Inspectors may stop men from working. See Section 15.
  - (g) Air current to be measured by the mine foreman twice each month and recorded in a book. See Section 15.
  - (h) Anemometer to be provided by the operator. See Section 15.

13. (a) Assistant mine foreman shall have had three years' experience in coal mines. See Section 15.
  - (b) Space on haulways to be made ten feet long by 30 inches wide every one hundred feet. See Section 15.
  - (c) Bore holes to be kept in advance. See Section 15.
  - (d) Signal light to be carried on each end of trips of cars. See Section 15.
  - (e) Stationary light to be maintained at top and bottom of shaft. See Section 15.
  - (f) Cages carrying men not to be lowered or hoisted at a speed greater than 600 feet per minute. See Section 15.
  - (g) Mine cars, neither empty nor loaded, shall not be hoisted while men are being lowered or hoisted. See Section 15.
  - (h) Cage having unstable platform not to be used for carrying men unless provided with device for locking same. See Section 15.
14. Stretchers to be kept on hand. See Section 15.
15. (a) Mine foreman or his assistant to visit and examine every working place every alternate day. See Section 15.
  - (b) Shall not permit any one to work in unsafe place; exception. See Section 15.
  - (c) Props or timbers to be placed by miners. See Section 15.
  - (d) Mine foreman to notify operator of his inability to comply with requirements of this section. Duty of operator or agent. See Section 15.
16. (a) Operator to furnish inspector facilities for entering and examining mine. See Section 16.
  - (b) Duty of Inspector when mine is in unsafe condition. Notify operator and Chief of Department of Mines. See Section 16.
  - (c) Chief of Department of Mines to examine mine and if he considers it unsafe has authority to close it. See Section 16.
  - (d) Owner or operator may apply to Circuit Court, or judge thereof in vacation, for order directing mine to be re-opened. See Section 16.
  - (e) Court, or judge thereof in vacation, to immediately hear and determine matters. See Section 16.
  - (f) Notice of hearing, three days at least, to be given District Mine Inspector or Chief of Department of Mines. See Section 16.
  - (g) Attorney General to represent the State. See Section 16.
17. (a) Boys under fourteen years of age and female persons not to be employed in mines. See Section 17.
  - (b) Affidavits to be furnished by parents or guardian of age in all cases of doubt. See Section 17.
18. (a) Employes not to do any act that endangers life or property. See Section 18.
  - (b) Employes not to disobey orders given in compliance with law. See Section 18.
19. Operators to furnish mine foreman all necessary supplies; right of action for damages. See Section 18.
20. Intimidation of employes prohibited. See Section 19.



21. (a) Explosions or other accidents:—Duty of superintendent or mine foreman; notify Inspector, and in case any one is killed thereby, notify coroner or justice of the peace also. See Section 20.
- (b) Inspector's powers and duties in case of explosion or other accident. See Section 20.
- (c) Coroner's duty to Inspector. See Section 20.
22. (a) Operators to make annual report during month of July to Chief of Department of Mines. See Section 21.
- (b) Any person, company or corporation transferring ownership of a coal mine shall report such transfer to Chief of Department of Mines within 30 days. Statement of tons of coal produced since first of July, last, previous to sale or transfer of such mine or mines. See Section 21.
23. Penalty for permitting persons to work, and for employes working, in any part of a mine in violation of instructions of Mine Inspector. See Section 22.
24. Solid shooting:—the District Mine Inspector to prescribe conditions under which such solid shooting may be done. See Section 23.
25. Steam locomotives not to be used in mines; exception. See Section 24.
26. (a) Rules to be adopted by operator for government and operation of mine or mines. See Section 25.
- (b) Printed on card-board in language spoken by ten or more employes. See Section 25.
- (c) Post in drum house, tippie or some other conspicuous place. See Section 25.
- (d) Copy to be furnished each employe. See Section 25.
- (e) See Section 15 in reference to timber in mines.
27. (a) Courts having concurrent jurisdiction. See Section 26.
- (b) Right of appeal. See Section 26.
28. (a) Mine Law applies to coal mines in which 5 or more persons are employed. See Section 27.
- (b) Mine foreman not required unless ten or more persons are employed. See Section 27.

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[Furnished to Operators and Employes.]

WEST VIRGINIA.  
DEPARTMENT OF MINES.

REGULATIONS.

July 1st, 1907.

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At a meeting of the District Mine Inspectors in the office of the Department of Mines in Charleston, on June 19th, and July 1st, 1907, it was unanimously agreed that the following regulations shall govern the Inspectors in so far as the law admits of discretionary powers:

1st. AS TO SOLID SHOOTING. One of the following conditions may be adopted:

(a) Use flameless powder exclusively, allowing miners to shoot at their convenience, all holes to be stemmed.

(b) In the use of black powder shot firers shall be employed to charge and fire shots when other employes are out of the mine. Use no dynamite except in rolls and clay veins. Use damp material for stemming.

(c) Employ shot inspectors who shall direct the drilling of holes, prescribe the quantity of powder to be used in each hole and personally fire the shots one at a time. Use damp material for stemming.

(d) In gaseous mines flameless powder shall be used exclusively. Holes to be stemmed.

2nd. IN GASEOUS MINES OR SECTIONS OF MINES WHERE EXPLOSIVE GAS IS LIBERATED, it is considered dangerous to the lives of the employes to use black powder or dynamite in blasting the coal.

Under such conditions it will be insisted upon that the coal, although undermined, shall be blasted by

(a) The use of flameless powder, or

(b) Where it is desired to use black powder, all shots shall be charged and fired by shot firers when all other employes are out of the mine, firing one shot at a time and allowing twenty minutes to elapse between any two shots in one working place. (Sixty cubic inches of powder weigh 2 1-10 pounds and will fill a 1½ inch hole a depth of 34 inches.)

3rd. SAFETY LAMPS, THEIR USE.

In mines liberating explosive gas or in sections of mines liberating explosive gas, safety lamps shall be used exclusively, where the liberation of gas necessitates the use of brattice to properly ventilate the working faces.

4th. ELECTRIC WIRES.

Where electric wires cross an entry or traveling way they shall be protected by a trench in the roof and covered underneath by a board.

At "partings" there shall be a stationary light to show the trolley wire.

5th. HIGH VOLTAGE WIRES.—Where wires or conduits transmitting as high as 500 volts are strung along the haulage road there shall be provided a separate traveling way for the employes.

6th. LOW VOLTAGE WIRES.—Where strung along haulage and traveling ways no employe shall carry along such traveling way any miner's tools while the current is on.

7th. POWDER.—No powder shall be carried on an electric motor or in or on cars propelled by an electric motor.

8th. INEXPERIENCED MINERS.—In order that the full intent and purpose of the law be fulfilled each inexperienced miner shall be visited twice each day by the mine foreman, his assistant or by a practical and competent mine man.

9th. STOPPINGS.—Along the main and important haulage entries stoppings shall be made of either

- (a) concrete,
- (b) brick laid in mortar,
- (c) stone closely laid and coated with cement or lime mortar.

10th. OIL.—Trip runners on motors and brakemen not allowed to use mixed oil. Only headlights on trips may use mixed oil.

11th. SIGNAL LIGHTS. On trips and trains of cars lights shall be fixed to front and rear end of trip.

The light carried by the trip rider will not meet the requirements.

12th. MACHINE MINES.—Do not fire black powder or dynamite in a place cut by machine within 30 minutes after the cut is finished.

The foregoing requirements will be insisted upon by the inspection department, since it is believed that the health and safety of the mine employes will be much better protected by the adoption of the recommendations.

Operators who take unkindly to the adoption of such remedies as may result in the increased safety and health of the employes may expect rigorous action on the part of the Department of Mines.

It may be conceded that some of the foregoing requirements are not specifically authorized by law, but it is well known that the most progressive and prosperous operations are fully abreast with any of the specifications enumerated.

This being an executive and not a judicial department it relies solely upon the high honor of the judiciary of the State in its effort to protect life and health in the interpretation and application of the law to the end that a full compliance with the mine law may be had.

Very respectfully,

JAS. W. PAUL.

*Chief of Department of Mines.*



# **FINAL REPORT.**

## FINAL REPORT.

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*To the Legislature of West Virginia:*

Your committee which was appointed under a substitute for House Joint Resolution No. 5 and House Joint Resolution No. 19 adopted on the 6th day of February, one thousand nine hundred and seven, and Senate Joint Resolution No. 22 adopted on the 16th day of February, one thousand nine hundred and seven, which said resolutions are fully set out in the preliminary report made by this committee which is printed in the record of these proceedings on pages 597-611 inclusive, begs leave to submit the following report:

Your committee has nothing further to add in respect to the explosions which occurred at the Stuart Mine, Whipple Mine and Thomas Mine other than what was set out in its preliminary report made to the Extraordinary Session of the Legislature in one thousand nine hundred and eight. Since the making of said report, however, the committee has met from time to time and examined divers witnesses as well as the mine inspector and his deputies and numerous operators with a view if possible of determining the means by which these disastrous explosions may be prevented as well as the efficiency of the department and the co-operation given the department by the operators improved. All the evidence taken at these hearings is herewith returned as a part of the record in connection with this report.

### **Lick Branch Explosion.**

On the 29th day of December, one thousand nine hundred and eight, there was an explosion, local in character, attended with great loss of life, in what is known as the Lick Branch mine of the Pocahontas Collieries Company, situated in McDowell county. This explosion, as gathered from the evidence, originated in what is known as the "Old Mine," or old workings, and what is generally called "Italy."

The force of the explosion from a given point within this portion of the mine traversed in every direction until exhausted by the area covered. It was attended with a fatality of fifty, and in a part of its course exercised great violence and energy; but the area was so large and the conditions such that it was not reinforced by combustible material, or possibly by failure of being supplied with a sufficient amount of oxygen to supply one of the absolute necessities for combustion; therefore, combustion ceased and the ill effects were not carried to the other portions of the mine. By investigation by the State mine inspector and the experts from different parts of the State and in the immediate locality, it was shown that the initial explosion was occasioned by a blown out shot in a pillar on the air way, and that was augmented by the igniting at a short distance therefrom of a keg or part of a keg of powder, at which point the first violence and intense heat were marked.

It was clearly shown in the evidence that the mine was in apparently good condition, and that no gas whatever had ever been found in the mine, except some several years before, it was reported that a man had been burned by the ignition of gas, but since that period, and immediately following the explosion, no marsh gas was discovered whatever. Hence, the explosion was of that character which is generally called a dust explosion, the ignition of the dust having been brought about by the overcharging of the shot placed within the pillar, which spent its energy upon the dust and combustible matter scattered in its pathway, and, in turn being reinforced by the powder within the keg, was the cause of the explosion. Although fifty lives were destroyed thereby, yet, so far as we can determine, we can fix no crime upon any individual, save and except that some party or parties unknown to us had conveyed within the mine and had stored there an unlawful quantity of powder; and, further, the possible overcharging or the imperfect tamping of the hole from which the windy or blown out shot occurred; one or all of those being the factors contributory in character which brought about the explosion, which happily died from want of support or immensity of the area through which it traveled.

Again, on the 12th day of January, one thousand nine hundred and nine, there occurred another explosion in the same mine, arising in what is known as the "New Mine" and traversing the whole mine. Fortunately, by reason of the condition that existed since the explosion on the 29th day of December, the number of men employed in the mine at that time was quite limited to those generally working therein, and although this was attended with a fatality of sixty-five men—only two escaping—had the mine been working to its full capacity at the time, the destruction of life would have been much greater.

In this instance, the combustible material within the mine was in such condition that it promptly reinforced the explosion at different points along its pathway over which it traveled, and in the various *cul de sacs* formed by the various workings of the mine, reinforcement was promptly afforded and the rebounding of the force therefrom—to which new energy had been added—carried the high temperature to all portions of the mine until the whole of the mine had become traversed by it. At intervals there were apparent cessations, to burst forth again with renewed energy—a sweeping torrent of flame loaded with deadly gases.

Again, we are at a loss to locate the individual who violated the law, but in this particular instance there was a well marked overcharged shot—seemingly the point of ignition—from which the force radiated in every direction. By reason of the abundance of air within the mine, it did not as a fact follow the general course pursued by dust explosions—that of traveling in opposition to the wind—but was afforded sufficient oxygen to keep up the combustion in each and every direction by reason of the large area occupied by the air, thereby furnishing sufficient oxygen to keep up the combustion.

In the new mine there were a number engaged in mining. In the old mine quite a number of men were cleaning up the debris of the former explosion, and all of those engaged in the work were instantly killed.

This blown out shot was located in Room No. 21-5 Entry, the coal having been scattered over the room and thrown across to the opposite wall. In this room intense heat had been developed, coking, in various places, the dust along the ribs and even in the floor of the room, and at various points along the course which it traveled after leaving that room, the coking was well marked upon the ribs and other portions of the work.

It is true that in our opinion no one can definitely locate the ignition, but marked evidence is however shown by reason of the physical disturbance of the coal as well as the characteristics generally shown by an overcharged hole; that this particular hole had been largely overcharged and with the heat and energy here developed, as well as finding the bodies of the men in the usual places to which the men retire for safety when shooting coal, it is reasonable to believe that this was the point of ignition. From the former reports made by the deputy mine inspector, as well as the testimony of different individuals, this mine had been considered a very safe mine, and in the particular instance leading to this explosion these men had been placed to work in this mine under the permission of the state mine inspector, after he and another inspector had concluded their inspection on the 5th day of January preceding the explosion and had pronounced the mine in such condition that work could be resumed in it.

Now it is highly probable that in the explosion of December 29th great atmospheric disturbance had become manifest throughout the mine by reason of the increased pressure and the sweeping, as it were, of the force in various directions from the local explosion occurring that day, and that the dust had been more or less raised and deposited at various points along the workings so that a thorough drying of the same rendered the mine in a condition which in no wise could be called safe until the saturation of these finer particles of dust with moisture had occurred. The increased temperature left within the mine by the former explosion would facilitate the drying of the dust, the absolute disappearance of the moisture and prevent absorption of the moisture from the colder atmosphere with which it came in contact and would certainly place the mine in such shape that ignition occurring, an abundance of material was in ready reach to add renewed energy at every point. Inasmuch as the explosion of the 29th of December had failed to reach the workings of what is known as the "New Mine," there is abundant evidence to show that the conditions had materially changed at the time of the explosion on the 12th day of January and should not have been overlooked by those whose duty it was to care for the safety of the men in the mine. If it be true that it is beyond human ken for those who are skilled in the work to discover conditions which eminently prepare mines for these fearful explosions, and experts having for several days been working and examining the conditions of this mine, then it is true that inspections are useless and an unnecessary expense; but we believe that had there been that care, with thorough investigation, as to the conditions of this mine, the difference of temperature as between the air entering the mine, the fact that there had been a sufficient atmospheric



agitation by the former explosion would have revealed the fact that the mine was not safe for operating until those dangerous conditions had been removed.

### Causes of Explosions.

Considering the causes of explosions it becomes necessary for us to take into consideration the fact that there are remote and exciting causes. The remote cause is the accumulation of explosives within the mine. The exciting cause is the ignition of those explosives.

Now it is generally considered that there are two different classes of explosions. First, the gas explosion, and second, the so-called dust explosion; and to that we may add a third class which should be called the mixed explosion, in which the ignition of the gas—it being the primary explosion—ignites the dust which becomes the important factor therein. In determining the character of the explosions there are many leading characteristics pertaining to both, and by taking these leading characteristics into consideration we can arrive at the conclusion whether it is a gas or a dust explosion.

The leading characteristics of a gas explosion are:

First: Developed centres of greatest violence in those localities in which there may be an accumulation of gases, or from which gas issues from the strata.

Second: It radiates from these centres in all directions in equal force, and from these centres travels in all directions, thereby showing contradictory force or evidence of the direction taken by the blast, and will have developed its force within a radius of sixty feet.

The essential features, and more prominent ones, of a dust explosion are the matter upon which it subsists. It therefore travels in that course where the material is scattered so that it is constantly being fed, the course being such as affords the greatest supply of oxygen and dust; hence its pathway is that which contains a large volume of dust and oxygen, and owing to the burning of those large volumes of dust and oxygen the high temperature is sustained by this process more easily, notwithstanding the fact that carbon monoxide gas—a product of the explosion—has a flame temperature much higher than that of marsh gas. Hence, all that is necessary to continue this explosion is the combustible matter in its pathway and an abundant supply of oxygen. It therefore very readily travels in opposition to the air instead of with it, as it would be extinguished for want of oxygen in traveling with the air.

The action of a dust explosion is slower than that of a gas explosion, as there are two operations in a dust explosion, namely, the distillation of gas from the coal into carbon-monoxide as a product, and the conversion of carbon-monoxide into carbon-dioxide, and both of these operations require a sufficiency of oxygen and necessarily render the process slower than that of an explosion of gas.

The following are the leading features by which a dust explosion can be determined:

First: The free suspension of dust in the air.

Second: The physical character of the dust.

Third: The temperature and hygrometric conditions.

Fourth: The volume and intensity of the flame.

Fifth: The size of the opening or the workings of the opening.

Sixth: The conditions of the mine respecting dust and moisture.

From these conclusions we learn that the essential features of an explosion are:

First: The presence of combustible matter in such form as makes combustion with explosive rapidity possible; and

Second: The presence of an atmosphere that will support combustion.

Third: The elevation of the temperature above the point of ignition and maintaining it at that point. Hence, any condition that lessens either of these conditions, not only lessens the force of the explosion but also helps to prevent the occurrence of an explosion.

The prevention of explosions can be partially accomplished by vigilance on the part of the officials and miners, combined with a rigid enforcement of the rules and regulations which should be in existence at every mine—rules and regulations which should be based upon laws governing mining, and have as their particular object the safety of human life and the saving of property.

It is the rule that men having become fully acquainted with the condition of danger, become tolerant and less careful. Hence, conditions that at first would be approached with great care are finally met with indifference and the loss of that care that the matter absolutely demands. Such training instead of lessening, increases the dangers of mining, and the miner having performed an act today that has saved himself several hours of labor without having incurred any penalty whatever, tomorrow gladly assumes the same risk, or even adds to the previous risk.

Until due care can be trained into the men, or the means of igniting the combustible material can be taken out of their hands, explosions will continue. On the part of the officials it may be that too great an anxiety exists to increase their tonnage and decrease their expense of production, which for awhile exists, and apparent immunity is enjoyed, but only for a short time, as the harvest of death and the loss of thousands of dollars of property surely and unexpectedly follow.

It is true that do what we may we can only minimize these fearful accidents, as explosions will continue as long as mining is practiced.

It is of the utmost importance that there should be a sufficient circulation of air to sweep all gas from the working places, cavities, or abandoned places which would permit the accumulation of gas, and it should be of such velocity as to accomplish these purposes. All of those abandoned areas left open should be thoroughly swept by air or they will become storehouses of danger, and a fall at any time may push into the workings the dangerous explosive therein stored.

The drainage of these areas by perforation from the surface with a sufficient hole to admit of the escape of the gases therein accumulated, has been suggested and practiced with good results, not only as to explosions but also improving the sanitary condition of the mines.

In mining soft coal it should be done in such a way as to reduce to a

minimum the pulverizing of the coal—removing the dust as rapidly as possible and spraying with water the workings and haulways leading directly thereto before firing a shot—as by this the temperature is depressed and materially lessens the danger of ignition; but too much reliance upon its protection should not be placed upon water, as it has been demonstrated that water does not establish immunity, but on the contrary may, with injudicious use, add to the dangers of mining.

Another pernicious practice in working gassy seams is the using of mixed lights. The miner who has become accustomed to the assuming of risk, hangs his so-called safety lamp at some convenient point as a guard, and using his mine lamp proceeds to mine the coal. The guard might indicate the approach of the foe, but unless carefully watched by the miner for the indication of gas this guard becomes so treacherous that it ignites the gas and the deed is done.

It further appears from our evidence that quite a number of men entirely ignore the tracings of signs made by the fire boss and go on with their open lamps as though danger were not in their presence. Again, we have evidence to show that the fire boss may be careless or indifferent as to the examination for the existence of gas and thereby permit men to walk to their death without warning. Such undoubtedly was the case in the explosion of the Thomas mine.

The enactment of law—though providing a sufficient penalty—will not correct this evil. Vigilance—active, eternal vigilance—on the part of the officials is the only source by which this evil can be corrected.

It cannot be denied that the blasting of coal is a great source of danger of gas or dust explosions in the working places. This may be due to the carelessness on the part of the miners or their ignorance of the tremendous energy that can be loosened by the blasting. The energy stored in a pound of marsh gas equals the energy of twenty-five pounds of black powder, and that of carbon—in the shape of fine coal dust—is equal to fifty per cent. of the marsh gas or two pounds of dust to twenty-five pounds of powder. Hence, it is only a question of setting free these great energies locked by chemical law, the key to loosen which is heat. This is furnished by the heat of a blown out, windy or overcharged shot, throwing a sheet of flame into the combustible matter, creating the necessary pressure by expansion and igniting the gas already existing there, adding thereto the product of its own combustion as well as that distilled from the dust of the coal. Thus we have a mine explosion and the mine becomes a burning furnace, picking up and adding to its force the energy of the material in its pathway.

These evils cannot be corrected by statutory law but must be accomplished by and through the vigilance of those who are in charge of the work, aided by that earnest and practical training which will fully impress upon the mind of each and every individual working therein the danger to his own life as well as the lives of those associated with him.

All men working within mines are liable to have their lives sacrificed by the carelessness of one of their number; hence they should be encouraged to report to the proper officer any violation of the rules and regulations governing the mines, and any of them who are found vio-

lating any of these rules should be promptly discharged and not permitted to enter the mine again; and when men are trained to that point that they fully realize the danger to themselves and the severe penalties imposed upon those who thus violate the law, we can expect to lessen the number of explosive accidents.

Legislation will fail in this unless the men are trained to realize that it is a duty they owe themselves to report upon the violation of the law.

### Department of Mines.

The Mine Department—in opinion of the committee—is not strong enough to cope with all the conditions before it. This inefficiency, however, cannot be said to be due entirely to the officers. It is the composite of many resulting causes. In the first place it is a physical impossibility for twelve deputy mine inspectors—no matter how competent they may be—to visit the great number of mines in their districts frequently enough to be of any great advantage in keeping the mines in a wholesome and safe condition and free of all danger. As the department is now organized no deputy can visit any one mine more than three or four times a year. The mine may be in good condition at the time of the visit but in case the operator should not co-operate with the department it is possible for him to know of the coming of the deputy and put his mine in good condition for the visit and during all the interim between the visits he is at liberty to permit any and all practices to be engaged by the miners in violation of the law or in violation of any orders that may be given by the department; so it is the opinion of the committee that to attain the ideal conditions in the mines of our State there must be an inspector for each mine who should give it his entire time. This was the opinion of Chief Paul as shown by his report to the Governor of the State, which report was laid before the committee.

This ideal condition can only be attained in two ways. First, by strengthening the mine department both in number of deputies and qualification of each deputy. Second, by throwing the responsibility upon the operator by making him liable for any and all accidents and deaths that may occur by reason of his mine being in an unsafe condition. By the first method suggested the State would assume a great burden by creating a very expensive department—so great that unless the operator should be compelled to bear the burden of the department the State should not be required to maintain such a department.

The second method does seem to the committee to be the correct solution of the problem before it. Every operator and company that operates to any extent, employs a mine foreman and where there are gaseous mines, a mine boss. These mine foremen should be efficient men, thoroughly acquainted with the dangers of the mine and they should devote their time providing for the safety of the mine and should not be required to perform the many duties that devolve upon the mine foreman at this time. This method would make the mine foreman an inspector. The chief of the department as well as many of the operators in seeking to agree upon a bill, represented to this committee that the department was weak on account of the low wages paid to deputy inspectors; that by

reason of these low wages it was impossible for the department to get high class men as deputy inspectors for the reason that the operating companies pay the mine foremen much larger salaries, thereby securing the best talent. Assuming this to be true there is no reason and can be no reason why these more competent men who are mine foremen cannot perform the duties of inspectors and should they devote their entire time to the mine under their management, with a view of keeping the mines safe and free of danger, under the direction of law, then in the opinion of the committee there would not be any great demand for an increase of the department in numbers and in fact the department might be lessened. The suggestion of throwing the responsibility upon the operator would approach the ideal state as suggested by Chief Paul.

The department of mines has at times been subjected to considerable criticism, some of which is merited, but a great deal of it is not, in view of the great amount of labor devolving upon the department on account of the great number of mines under its control. There are many other conditions that the department is forced to deal with which of themselves are bound to render the department more or less inefficient. Chief amongst these conditions are local conditions. That is to say, in sections of this State where operators have not been in sympathy with the department and have not insisted upon a rigid enforcement of the law, but have permitted the same to be violated, there seem to be local conditions which render it impossible for the department to enforce the law. There are sections of the State where shooting off the solid seems to be practiced generally and the operators do not seem to exercise any degree of diligence in preventing the miner from carrying in a large quantity of dynamite and powder. The department at times has attempted to break up these practices. Many prosecutions of the miners have been made by the department and quite a few prosecutions have been instituted against the operators for allowing their mines to remain in an unsafe and unwholesome condition. In every instance where the prosecution has been against the miner there seems to have been no difficulty in securing a conviction, but in all instances where the department has undertaken to close down a mine, or to regulate some unsafe condition of a mine, or practice by the operator, these prosecutions have failed. It seems therefore, to the committee that the courts in some way are under some kind of a spell or domination of the operator. These conditions are mentioned specifically by Chief Paul in his report to the Governor as above referred to. The query may arise why miners carry in these large quantities of powder and dynamite and why they permit themselves to shoot off the solid? The answer, however, to this query is that a large number of the miners—possibly more than half—are inexperienced and ignorant of the dangers surrounding them and know nothing of the fatal results that are bound to come from these practices. The State owes it as a duty to these toilers to enact such laws as will insure their safety. They are the wealth creators of the State and without them the vast riches of the State must lie undeveloped. This protection must come either from a department of mines that is made strong enough to cope with the conditions as they exist, or laws must be passed that will compel the operators to keep their mines in a safe condition

There is an operation in the State that is carrying out the suggestions that are made by this committee, namely, keeping a mine foreman whose only duty it is to look after the safety of the mine and who at all times exercises eternal vigilance, going through the mine and seeing that the laws and regulations of the mine are strictly complied with, and up to the present time—although it is a very large mine—in a number of years there have only been four accidents and four lives lost. In this particular mine the foreman knows every man who goes into the mine and the amount of powder used and in fact is fully awake at all times to all matters pertaining to the safety of the mine.

In a great many of the other mines, and in fact most of the mines in this State, there seems to be no effort to know the number of men who enter the mines, and although most of them have rules forbidding the carrying in of more powder than a given quantity, yet there is no one who sees that these rules are enforced, and the foremen of these mines instead of spending their time looking towards the safety of the mines are engaged in other kinds of business in connection with the mines.

Your committee desires further to state that since it was created it has seen a vast change made in all the mines of the State—a marked change for the better. Many of the operators have gone in advance of the law and have established regulations that are not required by law for the purpose of preventing disasters. Chief among these is the employment of shot firers and a regulation requiring all shots to be tamped with clay or some non-combustible matter. The experience along this line has been satisfactory and in the opinion of those who are trying it, minimizes the dangers of explosions.

A careful examination into all the disastrous explosions—or almost all of them—that have occurred in this State, will reveal the fact that they have occurred by reason of negligence—some on the part of the operators and others on the part of the miners, and almost all of them are the result of the violation of law and the non-enforcement of the rules and regulations of the company, and the principal violation is in shooting off the solid. While miners themselves engage in these practices it is the opinion of this committee that no company should permit such practices, and by the employment of a mine foreman in the mine who would give it his careful attention, these practices could be absolutely broken up. The last explosions that occurred—namely, on the 29th of December and on the 12th of January at Lick Branch—were in a mine that was being operated in violation of law. The law provides that breakthroughs shall be made at a distance of every eighty feet, and when the explosion occurred in this mine—according to the evidence adduced before your committee—men were working as much as 240 feet ahead of the air, and generally through the mine they were working ahead of the air more than eighty feet. This was in violation of law. After the explosion an inspection of the mine revealed the fact that shooting off the solid was generally practiced throughout the whole mine. The company that owns this mine should not be allowed to excuse itself by saying it did not know of these practices. It was its duty to know that the law was being violated and that the miners were shooting off the solid. And

another fact that was not mentioned by the chief or any of the deputies, in their report to this committee—but was subsequently admitted by the chief to this committee—was that prior to the explosion the fan was stopped for about half an hour, but the chief believed that the stopping of the fan had nothing whatever to do or was not a contributory cause to the explosion; and we might add in this connection that this committee cannot say that the violation of the law in respect to working ahead of the air contributed in any way to the disastrous explosion in this Lick Branch mine, because the fact was that the explosion took place near a breakthrough. How far, or to what extent the disregard of the law in this mine contributed to the explosion and the loss of life, this committee cannot now say. The grossest negligence—in the opinion of this committee—that was allowed at this mine, both by the department of mines and the operating company, was to permit the men to go into that part of the mine which was not effected by the first explosion and begin work. There cannot be any excuse on the part either of the operator or the department for permitting the miners to enter this part of the mine that was not effected by the first explosion until the mine had been carefully examined and found to be safe and free of latent dangers.

It seems to the committee that neither the department nor the operators are fully awake to the dangers surrounding them and alert to prevent them. The chief of the mine department and many of the operating companies have prepared a bill and submitted it to the legislature, in many instances modifying the present law. This bill is not approved or disapproved by this committee. There are some features in the bill, which if enacted into law, would tend to minimize the dangers latent in every mine. There are other provisions in the bill that seem to the committee to weaken the department. The shot-firing provided for by the bill unquestionably would be a good thing but unless mine foremen should prove themselves different than they have been in the past, it seems to the committee that it would be very dangerous to allow them to permit shooting off the solid instead of permission being given by the mine department. It seems that this provision would very greatly weaken the department and its efficiency. If greater responsibility were thrown upon the operator then it would not be necessary to increase the department in numbers.

The matter suggested in the bill requiring mine foremen to be examined and to be men of experience and skill in their particular line is a good provision, provided, that the responsibility is thrown upon them, and provided further that it is so guarded as not to lessen the liability of the operators by making the foremen State officials. There are other provisions of the bill that do not appeal to the committee.

Respectfully submitted.

THOMAS GARTLAN,

R. F. KIDD.

*On part of the Senate,*

J. H. STRICKLING,

A. J. MITCHELL.

*On part of the House*





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